N O T I C E

NO HAND CARRIED BIDS!
NO MAILED BIDS!

Current security requirements established by the U.S. Capitol Police to screen mail being delivered to the U.S. Capitol Complex of buildings preclude the use of U.S. Postal Service by offerors to deliver their proposals submitted in response to this solicitation. In addition, because all packages must be screened for security purposes at a central location prior to their delivery, the Architect of the Capitol cannot accept packages containing offers handcarried directly to the Bid Room address within the Ford House Office Building, as specified elsewhere in this solicitation, or at any other location in the U.S. Capitol Complex of buildings.

Due to these unusual circumstances the Procurement Division for the Architect of the Capitol will only accept offers/proposals via UPS or FEDEX. See provision AOC52.215-1 Instructions to Offerors located in Section L for solicitations for services/supplies or the Solicitation Conditions for solicitations for construction. All handcarried offers/proposals will be rejected. Any attempt to handcarry an offer/proposal to any location in the U.S. Capitol Complex of buildings will be refused. Offerors are advised when sending proposals via FEDEX or UPS ***not*** to use same day delivery. FEDEX/UPS often subcontract out the delivery for same-day service. It is necessary for delivery personnel to arrive in a FEDEX/UPS truck and be in a uniform recognized as FEDEX/UPS. Offerors are encouraged to determine who will be making the delivery when making arrangements with FEDEX/UPS.

NOTICE TO CONTRACTORS

The Architect of the Capitol anticipates that in 2006 the agency's contractors will have to register with the Central Contractor Registration (CCR) database. This is the primary vendor database for the U.S. Federal Government and the CCR collects, validates, stores, and disseminates data in support of agency acquisition missions.

Registration in the CCR will become mandatory in order to be awarded contracts by the Federal Government. Vendors are required to complete a one-time registration to provide basic information relevant to procurement and financial transactions. Vendors must update or renew their registration at least once per year to maintain an active status.

CCR validates the vendor information and electronically shares the secure and encrypted data with the federal agencies finance offices to facilitate paperless payments through electronic funds transfer (EFT).

The AOC is now encouraging all vendors to register with the CCR if they are not already registered. Vendors can register on line at http://www.ccr.gov. This internet site contains all pertinent information for registration as well as provides contact points for help when registering.

ADDITIONAL ROOF FALL PROTECTION FOR THE UNITED STATES SUPREME COURT

April 20, 2006

Architect of the Capitol
United States Capitol
Washington, D.C. - 20515

PROJECT MANUAL
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RFP No. 060104

ISSUED BY: **ARCHITECT OF THE CAPITOL**

ADDITIONAL ROOF FALL PROTECTION, U.S. SUPREME COURT

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BUSINESS

THE SCHEDULE

SUPPLIES OR SERVICES AND PRICES/COSTS FOR CONSTRUCTION

The Contractor shall furnish all supplies, equipment, personnel and services necessary for Additional Roof Fall protection at the U.S. Supreme Court located at 1st Street, N.E., Washington, D.C. (see the SPECIFICATIONS AND THE CONTRACT DRAWINGS) as required by the Architect of the Capitol.

1. SCHEDULE OF ITEMS

ITEM	DESCRIPTION	QTY.	U/M	PRICE
0001	Construction services for the additional roof fall protection, U.S. Supreme Court, in accordance with the Specifications and drawings.	1	LT	$_____
OPTION 1:				
0002	Provide two (2) telescopic manlifts for the additional roof fall protection, U.S. Supreme Court, in accordance with the specifications and drawings.	1	LT	$_____
TOTAL BASE AND OPTION PRICE				**$**_____

2. EXERCISE OF OPTIONS

(a) For Line Item 0002 ,the AOC will decide which to exercise 90 days after contract award, subject to the availability of funds.

(b) All work, to include the exercise of any option(s) is required to be completed within the completion date specified in AOC52.211-5 COMMENCEMENT, PROSECUTION AND COMPLETION OF WORK in the SUPPLEMENTARY CONDITIONS. In addition the exercise of these options may require a change to the Contractor's Schedule.

END OF SCHEDULE

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GENERAL CONDITIONS

AOC52.202-2 DEFINITIONS - CONSTRUCTION (JUN 2004)

(a) The term "Government" means the United States of America, represented by the Architect of the Capitol, who is the Contracting Officer.

(b) The term "head of the agency" means the Committee, Commission, or other authority of the Legislative Branch of the Government having final jurisdiction or supervision over the work involved. The "other authority" as used in this paragraph includes the Architect of the Capitol in cases in which he has final jurisdiction or supervision over the work involved.

(c) The term "Architect" as used in the contract documents shall mean the Architect of the Capitol.

(d) The term "Contracting Officer" as used in the contract documents means the Architect of the Capitol or his duly authorized representative.

(e) The term "his duly authorized representative" means any person or persons or board authorized to act for the head of the agency within the scope of their authority.

(f) The term "Contractor" means the individual, partnership or corporation entering into a contract with the Government to perform the work specified.

(g) The term "Subcontractor", as used in this part, means any supplier, distributor, vendor, or firm that furnishes supplies or services to or for a prime contractor or other subcontractor. There is no privity of contract between the Government and the Subcontractors.

(h) The term "Project Director" means the individual designated by the Architect to monitor the progress of work from a technical standpoint. The duties and responsibilities of the Project Director shall include supervision of scheduling, receipt and verification of Contractor's payrolls in accordance with the Davis Bacon Act, coordination between Divisions, concerning resolution and/or avoidance of potential problems and, to the extent authorized by the Delegation of Authority, if any, issuance of clarifications, supplemental agreements and change orders to the Contractor.

(i) The term "contract documents" includes, collectively, the Project Manual, the contract drawings and the addenda and modifications thereto, if any.

(j) The term "work" includes, but is not limited to, materials, labor, and manufacture and fabrication of components.

(k) The term "specifications" means the portion of the Contract Documents that consist of the written requirements for materials, equipment, construction systems, standards and workmanship for the Work, and performance of related services.

(l) The term “drawings” means the graphic and pictorial portions of the Contract Documents, wherever located and whenever issued, that show the design, location and dimensions of the Work, and generally includes plans, elevations, sections, details, schedules and diagrams.

(m) Wherever in the specifications or upon the drawings the word “directed,” “required,” “ordered,” “designated,” “prescribed,” or words of like import are used, it shall be understood that the “direction,” “requirement,” “order,” “designation,” or “prescription,” of the Contracting Officer is intended and similarly the words “approved,” “acceptable,” “satisfactory,” or words of like import shall mean “approved by” or “acceptable to,” or “satisfactory to” the Contracting Officer, unless otherwise expressly stated.

(n) Where “as shown,” “as indicated,” “as detailed,” or words of similar import are used, it shall be understood that the reference is made to the drawings accompanying this contract unless stated otherwise. The word “provided” as used herein shall be understood to mean “provide complete in place,” that is “furnished and installed.”

(End of clause)

AOC52.203-1 ADVERTISING/PROMOTIONAL MATERIALS (DEC 2005)

(a) It is the policy of the Congress to discourage contractors providing services and supplies to the Legislative Branch entities, including the Architect of the Capitol, from advertising practices that feature the Capitol and Capitol Complex in a manner in which conveys, or is reasonably calculated to convey, a false impression of sponsorship, approval or endorsement of any product or service by the Congress, the Government of the United States, or any Department, Agency or instrumentality thereof.

(b) Contractors performing construction services for Legislative Branch entities, including the Architect of the Capitol, are discouraged from capitalizing on their contractual relationships with such entities and shall not engage in advertising practices which convey, or are reasonably calculated to convey, a false impression of sponsorship, approval or endorsement of any product or service by the Congress, the Government of the United States, of any Department, Agency or instrumentality thereof. This includes utilizing, in conjunction with the fact of their contractual relationship, images of the Capitol, any other buildings in the Capitol Complex, or any part of the United States Capitol Grounds in their advertising or promotional materials; and/or publishing or disseminating the aforementioned advertising or promotional materials.
(c) The Contractor, by signing this contract, agrees to comply with the foregoing and to submit any proposed advertising or promotional copy connected in any manner with this contract and/or the Capitol, other Capitol Complex Buildings, or the United States Capitol Grounds to the Contracting Officer for approval prior to publication.
(d) If this solicitation is for supplies or services, including construction, to be provided to or performed for the United States Supreme Court, the Contractor, by signing this contract, agrees that he or she will not advertise the award of the contract in his/her commercial advertising in such a manner as to state or imply that the Supreme Court of the United States endorses a product, project, or commercial line of endeavor.

(End of clause)

AOC52.203-2 DISCLOSURE OF INFORMATION TO THE GENERAL PUBLIC (JUN 2004)

(a) Promptly after receiving any request from the general public for information on or data derived from this contract, the contractor shall notify the Architect of the Capitol, Procurement Division. The contractor shall cooperate with the Procurement Division in compiling or collecting information or data if the Architect of the Capitol determines the information or data to be releasable.

(b) "General public", for purposes of this clause, are those groups or individuals who are not authorized by law or regulation to have access.

(c) This clause is not intended to prevent the contractor from providing contract information or data which the contractor is required to provide in order to conduct its business, such as insurance, banking, subcontracting.

(d) The contractor is permitted to request that proprietary information or data not be released if such release would harm or impair the contractor in conducting its normal business. Such request must be documented with clear and specific grounds for that claim.

(End of clause)

AOC52.204-1 PRINTED OR COPIED DOUBLE-SIDED ON RECYCLED PAPER (JUN 2004)

The Contractor is encouraged to submit paper documents, such as offers, letters, or reports, that are printed or copied doubled-sided on recycled paper and meet minimum content standards when not using electronic commerce methods to submit information or data to the Government.

(End of clause)

AOC52.211-3 DEFICIENCIES IN CONTRACT DOCUMENTS (JUN 2004)

The Contractor shall promptly inform the Contracting Officer, in writing, of any discovered errors, omissions, discrepancies, conflicts or ambiguities in the contract documents before proceeding with any work affected by such factors. Failure to do so will be at the risk of the Contractor.

(End of clause)

AOC52.211-6 NOTICE TO PROCEED (JUN 2004)

A formal notice, or notices, to proceed will be issued as soon as practical, normally after approval by the Contracting Officer of the bonds and insurance. Unless specifically authorized in writing, any steps taken in connection with the performance of, or the preparation to perform, the contract, prior to issuance of the notice to proceed, will be the responsibility of and at the risk of the Contractor, and without any cost whatsoever to the Government.

(End of clause)

AOC52.215-10 EXAMINATION OF RECORDS (JUN 2004)

(a) The Contractor agrees that the Architect of the Capitol or any duly authorized representatives shall, until the expiration of 3 years after final payment under this contract, have access to and the right to examine any books, accounting procedures and practices documents, papers, records and other data regardless of whether such items are in written form, in the form of computer data or in any other form and other supporting evidence, involving transactions related to this contract or compliance with any clause or certification thereunder.

(b) The Contractor further agrees to include in all its subcontracts hereunder a provision to the effect that subcontractor agrees that the Architect of the Capitol or any authorized representatives shall, until the expiration of 3 years after final payment under the subcontract, have access to and the right to examine books, documents, papers, records other data regardless of whether such items are in written form, in the form of computer data or in any other form, and other supporting evidence, involving transactions related to the subcontract or compliance with any clause or certification thereunder.

(c) The term "subcontract" as used in this clause excludes purchase orders not exceeding $10,000.

(End of clause)

AOC52.215-11 AUDITS (JUN 2005)

(a) If the price of this contract is changed through the operation of any of the provisions of this contract, the Contractor, within such reasonable time as the Contracting Officer may direct, shall submit complete and accurate cost and pricing data in support of any claim asserted under such provisions.

(b) With the submission of cost and pricing data in support of any claim, the Contractor shall supply the following certification by a duly authorized corporate officer, partner, or owner, as applicable:

> "This is to certify that, to the best of my knowledge and belief, the cost and pricing data herewith submitted to the Contracting Officer in support of a price adjustment under Supplement/Claim No. for _____ (identify by description) are accurate and complete and they are current as of _____ (date).
> Date of Execution _____
> Firm _____
> Signature_____
> Title_____"

(c) The Contracting Officer in accordance with the FAR clause "Audit and Records - Negotiation", 52.215-2, has the right to examine all books, records, documents and other data of the Contractor or subcontractor in order to evaluate the accuracy, completeness, and currency of cost or pricing data thus submitted. The Contractor shall insert an appropriate provision in all subcontracts for the purpose of making the requirements

of this paragraph applicable thereto.

(End of clause)

AOC52.216-6 UNDEFINITIZED CONTRACT ACTIONS (MAR 2005)

(a) In the event of an urgent situation, the services or supplies may be required on an emergency basis under an undefinitized contract action (emergency task/delivery order, contract modification, or letter contract). The undefinitized contract action may be either verbal, typed, or hand written, with the form of the undefinitized contract action dictated by the access the issuing Contracting Officer has to the AOC network or a computer. If issued verbally, the Contracting Officer shall provide a written confirming document to the location identified by the contractor within 5 calendar days after issuance of the verbal undefinitized contract action. If an undefinitized contract action is issued under an existing contract, the terms and conditions of the contract shall be in effect and automatically incorporated by reference under any undefinitized contract action issued.

(b) The scope of work as originally issued on the contract action will, of necessity, be somewhat broad and general in nature. It is to also be considered as a Notice to Proceed immediately with the work under the undefinitized contract action. An estimated amount for the work to be performed shall be obligated to ensure that reasonable funds are available for payment to the contractor, and an estimated completion date shall be identified on the undefinitized contract action. If the contractor believes the amount of funds obligated or time for completion as stated in the undefinitized contact action are unreasonable, within 30 calendar days after issuance of the written undefinitized contract action the contractor is responsible for notifying the Contracting Officer of this and providing a suggested amount of funds for obligation or time for completion. In no instance shall the contractor's suggested amount of funds for obligation or time for completion be considered as binding to the contractor or the Government in future negotiations. The Government can elect to use the contractor's suggested amount of funds or time for completion as an indication that some additional funds or time for completion may be required and obligated or adjusted, respectively, in order to ensure that reasonably adequate funds are available to pay the contractor for services performed or that the completion time is reasonable .

(c) Within a reasonable amount of time after the issuance of the undefinitized contract action but not later than an estimated 25% of the way through the completion of the work under the undefinitized contract action, an authorized representative of the contractor must meet, either in person or telephonically, with the Contracting Officer to further define the scope of work, negotiate the price, identify a final completion date, and address other activities necessary to definitize the undefinitized contract action. This estimated 25% shall use the best information reasonably available and be based upon (1) an estimate of the amount of work completed relative to the original general scope of work or (2) the amount of payments made relative to the original amount obligated.

(d) Payments can be made from the original amount obligated, but the undefinitized contract action must be definitized before payments exceed 40% of funds originally obligated.

(e) If communications are disrupted to the degree that it is necessary to communicate with the Contracting

Officer at their residence or through other devices that do not utilize AOC-owned equipment, i.e., the Contracting Officer's residential telephone line, home address, etc., the contractor shall treat the Contracting Officer's personal information as confidential and shall not divulge the information to any individual or organization, including but not limited to other AOC personnel, without the Contracting Officer's express written permission. If it becomes necessary for the Contracting Officer to communicate with the contractor through means other than the contractor's normal place of business, i.e., the contractor's residential telephone line or home address, the Contracting Officer shall not divulge the information to any individual or organization, including but not limited to other AOC or contractor personnel, without the contractor's express written permission.

(f) For the purposes of this clause, e-mail is considered express written permission.

(End of clause)

AOC52.219-1 UTILIZATION OF SMALL BUSINESS CONCERNS (AUG 2004)

(a) It is the policy of the Government as declared by the Congress that a fair proportion of the purchases and contracts for supplies and services for the Government be placed with all types of small business concerns as determined by the size standards in 13 CFR 121.

(b) The Contractor agrees to accomplish the maximum amount of subcontracting to all types of small business concerns that the Contractor finds to be consistent with the efficient performance of this contract.

(End of clause)

AOC52.222-1 OVERTIME WORK - CONSTRUCTION (AUG 2004)

No extra reimbursement will be allowed for work performed outside regular working hours or on Saturday, Sundays or holidays and, for work performed in the District of Columbia, Presidential Inauguration Day, unless such work is ordered in writing by the Contracting Officer and payment therefore is authorized in the written order, and provided such work is not otherwise required to be performed under terms of the contract.

(End of clause)

AOC52.222-3 CONVICT LABOR (JUN 2004)

In connection with the performance of work under this contract the Contractor agrees not to employ any person undergoing sentence of imprisonment except as provided by Public Law 89-176, approved September 10, 1965, 18 U.S.C. 4082(c)(2).

(End of clause)

AOC52.222-7 WORKMEN'S COMPENSATION LAWS (JUN 2004)

The Contractor and his subcontractors employed on the site shall comply with the Workmen's Compensation Laws of the District of Columbia.

(End of clause)

FAR 52.223-3 HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA (JAN 1997) ALTERNATE I (JULY 1995)

(a) "Hazardous material" as used in this clause, includes any material defined as hazardous under the latest version of Federal Standard No. 313 (including revisions adopted during the term of the contract).

(b) The offeror must list any hazardous material, as defined in Paragraph (a) of this clause, to be delivered under this contract. The hazardous material shall be properly identified and include any applicable identification number, such as National Stock Number or Special Item Number. This information shall also be included on the Material Safety Data Sheet submitted under this contract.

Material (If none, insert "None")	Identification No.
_____	_____
_____	_____
_____	_____

(c) This list must be updated during performance of the contract whenever the Contractor determines that any other material to be delivered under this contract is hazardous.

(d) The apparently successful offeror agrees to submit, for each item as required prior to award a "Material Safety Data Sheet", meeting the requirement of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous material identified in Paragraph (b) of this clause. Data shall be submitted in accordance with Federal Standard No. 313, whether or not the apparently successful offeror is the actual manufacturer of these items. Failure to submit the Material Safety Data Sheet prior to award may result in the apparently successful offeror being considered nonresponsible and ineligible for award.

(e) If, after award, there is a change in the composition of the items(s) or a revision to Federal Standard No. 313, which renders incomplete or inaccurate the data submitted under Paragraph (d) of this clause, the Contractor shall promptly notify the Contracting Officer and resubmit the data.

(f) Neither the requirements of this clause nor any act or failure to act by the Government shall relieve the Contractor of any responsibility or liability for the safety of Government, Contractor, or subcontractor personnel or property.

(g) Nothing contained in this clause shall relieve the Contractor from complying with applicable Federal,

State and local laws, codes, ordinances, and regulations (including the obtaining of licenses and permits) in connection with hazardous material.

(h) The Government's rights in data furnished under this contract with respect to hazardous material are as follows:

(1) To use, duplicate and disclose any data to which this clause is applicable. The purposes of this right are to–

(i) Apprise personnel of the hazards to which they may be exposed in using, handling, packaging, transporting, or disposing of hazardous materials;

(ii) Obtain medical treatment for those affected by the material; and

(iii) Have others use, duplicate and disclose the data for the Government for these purposes.

(2) To use, duplicate and disclose data furnished under this clause, in accordance with subparagraph (h)(1) of this clause, in precedence over any other clause of this contract providing for rights in data.

(3) The Government is not precluded from using similar or identical data acquired from other sources.

(i) Except as provided in Paragraph (i)(2), the Contractor shall prepare and submit a sufficient number of Material Safety Data Sheets (MSDS's), meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous materials identified in Paragraph.(b) of this clause.

(1) For items shipped to consignees, the Contractor shall include a copy of the MSDS's with the packing list or other suitable shipping document which accompanies each shipment. Alternatively, the Contractor is permitted to transmit MSDS's to consignees in advance of receipt of shipments by consignees, if authorized in writing by the Contracting Officer.

(2) For items shipped to consignees identified by mailing address as agency depots, distribution centers or customer supply centers, the Contractor shall provide one copy of the MSDS' in or on each shipping container. If affixed to the outside of each container, the MSDS's must be placed in a weather resistant envelope.

(End of clause)

AOC52.223-1 HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA - SUPPLEMENT (JUN 2005)

(a) Except as provided in paragraph (c), the Contractor shall prepare and submit a sufficient number of

Material Safety Data Sheets (MSDS's), meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous materials identified in FAR 52.223-3(b).

(b) For items shipped to consignees, the Contractor shall include a copy of the MSDS's with the packing list or other suitable shipping document which accompanies each shipment. Alternatively, the Contractor is permitted to transmit MSDS's to consignees in advance of receipt of shipments by consignees, if authorized in writing by the Contracting Officer.

(c) For items shipped to consignees identified by mailing address as agency depots, distribution centers or customer supply centers, the Contractor shall provide one copy of the MSDS' in or on each shipping container. If affixed to the outside of each container, the MSDS's must be placed in a weather resistant envelope.

(d) For items provided to a construction site, the Contractor shall provide two copies of each MSDS. One copy shall be provided to the COTR in accordance with the Division 1 submittal requirements, and a second copy shall be kept in an MSDS binder on the job site.

(End of clause)

AOC52.223-3 SECURITY MARKINGS (JUN 2004)

(a) Before dissemination to subcontractors or other personnel, all AOC drawings and electronic copies thereof shall be considered at a minimum to be *sensitive but unclassified* (SBU). The following statement shall be imprinted on *each* page of drawings:

PROPERTY OF THE UNITED STATES GOVERNMENT
COPYING, DISSEMINATING, OR DISTRIBUTING THESE DRAWINGS, PLANS OR SPECIFICATIONS TO UNAUTHORIZED USERS IS PROHIBITED
Do not remove this notice
Properly destroy documents when no longer needed

(b) The following paragraph shall be included on the cover page of the information (such as the cover page on a set of construction drawings and on the cover page of the specifications).

PROPERTY OF THE UNITED STATES GOVERNMENT
COPYING, DISSEMINATING, OR DISTRIBUTING THESE DRAWINGS, PLANS OR SPECIFICATIONS TO UNAUTHORIZED USERS IS PROHIBITED
Do not remove this notice
Properly destroy documents when no longer needed

(End of clause)

AOC52.223-4 TRANSMISSION OR POSTING OF DRAWINGS/SPECIFICATIONS (JUN 2004)

Due to security issues, the contractor is strictly prohibited from placing or transmitting drawings and specifications on the internet or modem without express permission from the Architect of the Capitol.

(End of clause)

FAR 52.225-9 BUY AMERICAN ACT– CONSTRUCTION MATERIALS (JUNE 2003)

(a) *Definitions*. As used in this clause --

"Component" means an article, material, or supply incorporated directly into construction materials.

"Construction material" means an article, material, or supply brought to the construction site by the Contractor or a subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

"Cost of components" means–

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material product (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in Paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the end product.

"Domestic construction material" means–

(1) An unmanufactured construction material mined or produced in the United States, or

(2) A construction material manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic.

"Foreign construction material" means a construction material other than a domestic construction material.

"United States" means the 50 States, the District of Columbia, and outlying areas

(b) *Domestic preference*. (1) This clause implements the Buy American Act (41 U.S.C. 10a-10d) by providing a preference for domestic construction material. The Contractor shall use only domestic construction material in performing this contract, except as provided in Paragraphs (b)(2) and (b)(3) of this clause.

(2) This requirement does not apply to the construction material or components listed by the Government as follows:

(Contracting Officer to list applicable excepted materials or indicate "None") None

(3) The Contracting Officer may add other foreign construction material to the list in Paragraph (b)(2) of this clause if the Government determines that--

(i) The cost of domestic construction material would be unreasonable. The cost of a particular construction material subject to the requirements of the Buy American Act is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;

(ii) The application of the restriction of the Buy American Act to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

(c) *Request for determination of inapplicability of the Buy American Act.* (1)(i) Any contractor request to use foreign construction material in accordance with Paragraph (b)(3) of this clause shall include adequate information for Government evaluation of the request, including--

(A) A description of the foreign and domestic construction materials;

(B) Unit of measure;

(C) Quantity;

(D) Price;

(E) Time of delivery or availability;

(F) Location of the construction project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with Paragraph (b)(3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in Paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination

(2) If the Government determines after contract award that an exception to the Buy American Act applies and the Contracting Officer and the contractor negotiates adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in Paragraph (b)(3)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American Act applies, use of foreign construction material is noncompliant with the Buy American Act or Balance of Payments Program.

(d) *Data.* To permit evaluation of requests under Paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers;

FOREIGN AND DOMESTIC CONSTRUCTION MATERIALS PRICE COMPARISON

Construction Material Description	Unit of Measure	Quantity	Price (Dollars)*
Item 1:			
Foreign construction material	_____	_____	_____
Domestic construction material	_____	_____	_____
Item 2:			
Foreign construction material	_____	_____	_____
Domestic construction material	_____	_____	_____

[List *name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.]*
[Include other applicable supporting information.]
[Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate is issued).]*

(End of clause)

AOC52.225-1 BUY AMERICAN ACT - SUPPLEMENT (JUN 2004)

In addition to provisions of the above clause entitled, "Buy American Act", the General Provisions of the Legislative Branch Appropriations Act provides in part, as follows:

(a) It is the sense of the Congress that, to the greatest extent practicable, all equipment and products purchased with funds made available in the Act should be American-made.

(b) In providing financial assistance to or entering into any contract with, any entity using funds made available in the Act, the head of each Federal Agency, to the greatest extent practicable, shall provide to such entity a notice describing the statement made in Paragraph (a) above, by the Congress.

(End of clause)

AOC 52.228-2 INSURANCE - WORK ON A GOVERNMENT INSTALLATION (SEP 2004)

(a) The Contractor shall, at his own expense, provide and maintain during the entire performance of this contract at least the kinds and minimum amounts of insurance as required in this clause.

(b) Within twenty (20) calendar days after the date of contract award or before commencing work under this contract, whichever is earlier, the Contractor shall notify the Contracting Officer in writing that the required insurance has been obtained. A Certificate of Insurance evidencing the Contractor's compliance with the requirements of this clause, identifying all policies of insurance and sureties proposed for the provision of liability coverage pertinent to the work of the instant contract, including the endorsement required in this paragraph, and manually countersigned by an authorized representative of the insurance company shall be submitted in accordance with the time frame stated in this paragraph. All policies for liability protection, bodily injury, or property damage shall include the United States of America, acting by and through the Architect of the Capitol, as an additional insured with respect to operations under this contract. Each policy of insurance shall contain the following endorsement, which may be attached as a rider:

> "It is understood and agreed that the Contractor's Insurance Company or surety shall notify the Architect of the Capitol, in writing, thirty (30) calendar days in advance of the effective date of any reduction in or cancellation of this policy."

(c) Insurance and required minimum liability limits are:

(1) Appropriate bodily injury and property damage liability insurance, with limits of not less than $500,000 for each occurrence and $2,000,000 for annual aggregate, including requirements for protection of hoisting and scaffolding operations, when applicable, and servicing areas adjacent to the building;

(2) Automobile bodily injury liability insurance with limits of not less than $200,000 for each person and $500,000 for each accident, and property liability insurance, with a limit of not less than $20,000 for each accident. A combined single limit for these coverages is acceptable; and/or

(3) Workmen's compensation insurance as required by the laws of (1) the District of Columbia for work performed on a Government site located in the District of Columbia; (2) the State of Maryland for work performed on a Government site located in Maryland; or (3) the Commonwealth of Virginia for work performed on a Government site located in Virginia.

(d) The Contractor shall insert the substance of this clause, including this paragraph, in subcontracts under this contract that require work on a Government installation, and shall require subcontractors to provide and maintain the insurance required in this clause. The Contractor shall maintain a copy of all subcontractors' proofs of required insurance, and shall make copies available to the Contracting Officer upon request.

(End of clause)

AOC52.228-5 PERFORMANCE AND PAYMENT BONDS - CONSTRUCTION (SEP 2004)

(a) *Definitions*. As used in this clause, "original contract price" means the award price of the contract; or, for requirements contracts, the price payable for the estimated total quantity; or, for indefinite-quantity contracts, the price payable for the specified minimum quantity. Original contract price does not include the price of any options, except those options exercised at the time of contract award.

(b) *Amount of required bonds*. Unless the resulting contract price is $25,000 or less, the successful offeror shall furnish performance and payment bonds to the Contracting Officer as follows:

(1) Performance Bonds: (Standard Form 25). The penal amount of performance bonds at the time of contract award shall be 100 percent of the original contract price.

(2) Payment Bonds: (Standard Form 25-A). The penal amount of payment bonds at the time of contract award shall be 100 percent of the original contract price.

(c) *Additional bond protection*. (1) The Government may require additional performance and payment bond protection if the contract price is increased. The increase in protection generally will equal 100 percent of the increase in contract price.

(2) The Government may secure the additional protection by directing the Contractor to increase the penal amount of the existing bonds or to obtain an additional bond.

(d) Furnishing executed bonds. The Contractor shall furnish all executed bonds, including any necessary reinsurance agreements, to the Contracting Officer, within the time period specified in Item 12 of the form entitled, "Solicitation, Offer, and Award (Construction, Alteration, or Repair)" or otherwise specified by the Contracting Officer, but in any event, before starting work.

(e) Surety or other security for bonds. The bonds shall be in the form of firm commitment, supported by corporate sureties whose names appear on the list contained in Treasury Department Circular 570, or by other acceptable security such as postal money order, certified check, cashier's check, irrevocable letter of credit, or, in accordance with Treasury Department regulations, certain bonds or notes of the United States. Treasury Circular 570 is published in the Federal Register or may be obtained from the U.S. Department of Treasury, Financial Management Service, Surety Bond Branch, 401 14th Street, NW, 2nd Floor, West Wing, Washington, DC 20227.

(f) Notice of subcontractor waiver of protection (40 U.S.C. 270 b(c). Any waiver of the right to sue on the

payment bond is void unless it is in writing, signed by the person whose right is waived, and executed after such person has first furnished labor or material for use in the performance of the contract.

(End of clause)

AOC52.228-6 NOTICE TO SURETIES (JUN 2004)

The final inspection and acceptance of the work included in this contract shall not be binding or conclusive upon the Government if it shall subsequently appear that the Contractor has willfully or fraudulently, or through collusion with the representatives of the Government in charge of the work, supplied inferior material or workmanship, or has departed from the terms of the contract, or if defects of any kind should develop during the period that the guarantees covering such material and workmanship are in force. In such event, the Government shall have the right, notwithstanding such final acceptance and payment, to have the work removed and to cause the work to be properly performed and satisfactory material supplied to such extent as, in the opinion of the Contracting Officer, may be necessary to finish the work in accordance with the drawings, if any, and specifications, at the expense of the Contractor and the sureties on its bond, and the Government shall have the right to recover against the Contractor and its sureties the cost of such work, together with such other damages as the Government may suffer because of the default of the Contractor in the premises, the same as though such acceptance and final payment had not been made.

(End of clause)

FAR52.232-5 PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS (SEP2002)

(a) *Payment of price*. The Government shall pay the Contractor the contract price as provided in this contract.

(b) *Progress payments*. The Government shall make progress payments monthly as the work proceeds, or at more frequent intervals as determined by the Contracting Officer, on estimates of work accomplished which meets the standards of quality established under the contract, as approved by the Contracting Officer.

(1) The Contractor's request for progress payments shall including the following substantiation:

(i) An itemization of the amounts requested, related to the various elements of work required by the contract covered by the payment requested;

(ii) A listing of the amount included for work performed by each subcontractor under the contract;

(iii) A listing of the total amount of each subcontract under the contract;

(iv) A listing of the amounts previously paid to each such subcontractor under the contract;

(v) Additional supporting data in a form and detail required by the Contracting Officer.

(2) In the preparation of estimates, the Contracting Officer may authorize material delivered on the site and preparatory work done to be taken into consideration. Material delivered to the Contractor at locations other than the site also may be taken into consideration if--

(i) Consideration is specifically authorized by this contract; and

(ii) The Contractor furnishes satisfactory evidence that it has acquired title to such material and that the material will be used to perform this contract.

(c) *Contractor certification.* Along with each request for progress payments, the Contractor shall furnish the following certification, or payment shall not be made: (However, if the Contractor elects to delete Paragraph (c)(4) from the certification, the certification is still acceptable.)

I hereby certify, to the best of my knowledge and belief, that--

(1) The amounts requested are only for performance in accordance with the specifications, terms, and conditions of the contract;

(2) All payments due to subcontractors and suppliers from previous payments received under the contract, and timely payments will be made from the proceeds of the payment covered by this certification, in accordance with subcontract agreements and the requirements of Chapter 39 of Title 31, United States Code;

(3) This request for progress payments does not include any amounts which the prime contractor intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of the subcontract; and

(4) This certification is not to be construed as final acceptance of a subcontractor's performance.

_____ (Name)
_____ (Title)
_____ (Date)

(d) Refund of unearned amounts. If the Contractor, after making a certified request for progress payments, discovers that a portion or all of such request constitutes a payment for performance by the Contractor that fails to conform to the specifications, terms, and conditions of this contract (hereinafter referred to as the "unearned amount"), the Contractor shall - -

(1) Notify the Contracting Officer of such performance deficiency; and

(2) Be obligated to pay the Government an amount (computed by the Contracting Officer in the manner provided in paragraph (j) of this clause) equal to interest on the unearned amount from the 8th day after the date of receipt of the unearned amount until - -

(i) The date the Contractor notifies the Contracting Officer that the performance deficiency has been corrected; or

(ii) The date the contractor reduces the amount of any subsequent certified request for progress progress payments by an amount equal to the unearned amount.

(e) *Retainage*. If the Contracting Officer finds that satisfactory progress was achieved during any period for which a progress payment is to be made, the Contracting Officer shall authorize payment to be made in full. However, if satisfactory progress has not been made, the Contracting Officer may retain a maximum of 10 percent of the amount of the payment until satisfactory progress is achieved. When the work is substantially complete, the Contracting Officer may retain from previously withheld funds and future progress payments that amount the Contracting Officer considers adequate for protection of the Government and shall release to the Contractor all the remaining withheld funds. Also, on completion and acceptance of each separate building, public work, or other division of the contract, for which the price is stated separately in the contract, payment shall be made for the completed work without retention of a percentage.

(f) *Title, liability, and reservation of rights*. All material and work covered by progress payments made shall, at the time of payment, become the sole property of the Government, but this shall not be construed as--

(1) Relieving the Contractor from the sole responsibility for all material and work upon which payments have been made or the restoration of any damaged work; or

(2) Waiving the right of the Government to require the fulfillment of all of the terms of the contract.

(g) Reimbursement for bond premiums. In making these progress payments, the Government shall, upon request, reimburse the Contractor for the amount of premiums paid for performance and payment bonds (including coinsurance and reinsurance agreements, when applicable) after the Contractor has furnished evidence of full payment to the surety. The retainage provisions in paragraph (e) of this clause shall not apply to that portion of progress payments attributable to bond premiums.

(h) *Final payment*. The Government shall pay the amount due the Contractor under this contract after--

(1) Completion and acceptance of all work;

(2) Presentation of a properly executed voucher; and

(3) Presentation of release of all claims against the Government arising by virtue of this contract, other than claims, in stated amounts, that the Contractor has specifically excepted from the operation of the release. A release may also be required of the assignee if the Contractor's claim to amounts payable under this contract has been assigned under the Assignment of Claims Act of 1940 (31 U.S.C. 3727 and 41 U.S.C. 15).

(i) Limitation because of undefinitized work. Notwithstanding any provision of this contract, progress payments shall not exceed 80 percent on work accomplished on undefinitized contract actions. A "contract

action" is any action resulting in a contract, as defined in FAR Subpart 2.1, including contract modifications for additional supplies or services, but not including contract modifications that are within the scope and under the terms of the contract, such as contract modifications issued pursuant to the Changes clause, or funding and other administrative

(j) Interest computation on unearned amounts. In accordance with 31 U.S.C. 3903©)(1), the amount payable under paragraph (d)(2) of this clause shall be --

(1) Computed at the rate of average bond equivalent rates of 91-day Treasury bills auctioned at the most recent auction of such bills prior to the date of the Contractor receives the unearned amount; and;

(2) Deducted from the next available payment to the Contractor.

(End of clause)

AOC52.232-6 PAYMENT BY ELECTRONIC FUNDS TRANSFER - OTHER THAN CENTRAL CONTRACTOR REGISTRATION (JUN 2004)

(a) *Method of payment*. (1) All payments by the Government under this contract shall be made by electronic funds transfer (EFT) except as provided in paragraph (a)(2) of this clause. As used in this clause, the term "EFT" refers to the funds transfer.

(2) In the event the Government is unable to release one or more payments by EFT, the contractor agrees to either--

(i) Accept payment by check or some other mutually agreeable method of payment; or

(ii) Request the Government to delay payment until such time as the Government makes payment by EFT (but see paragraph (d)).

(b) *Mandatory submission of Contractor's EFT information*. (1) The Contractor is required to provide the Government with the information required to make payment by EFT (see paragraph (i) of this clause). The contractor shall provide this information directly to the office designated in paragraph (k) to receive that information (hereafter: "designated office") by three working days after notification of contract award. If not otherwise specified in this contract, the payment office is the designated office for receipt of the contractor's EFT information. If more than one designated office is named for the contract, the contractor shall provide a separate notice to each office. In the event that the EFT information changes, the contractor shall be responsible for providing the updated information to the designated office(s).

(2) If the contractor provides EFT information applicable to multiple contracts, the contractor shall specifically state the applicability of this EFT information in terms acceptable to the designated office. However, EFT information supplied to a designated office shall be applicable only to contracts that identify that designated office as the office to receive EFT information for that contract.

(c) *Mechanisms for EFT payment*. The Government may make payment by EFT through the Automated

Clearing House (ACH) network, subject to the rules of the National Automated Clearing House Association. The rules governing Federal payments through the ACH are contained in 31 CFR part 210.

(d) *Suspension of payment*. (1) Notwithstanding the provisions of any other clause of this contract, the Government is not required to make any payment under this contract until after receipt, by the designated payment office, of the correct EFT payment information from the Contractor. Until receipt of the correct EFT information, any invoice or contract financing request shall be deemed not to be a valid invoice.

(2) If the EFT information changes after submission of correct EFT information, the Government shall begin using the changed EFT information no later than the 30 days after its receipt by the designated office to the extent payment is made by EFT. However, the Contractor may request that no further payments be made until the changed EFT information is implemented by the payment office.

(e) *Liability for uncompleted or erroneous transfers*. (1) If an uncompleted or erroneous transfer occurs because the Government failed to use the Contractor-provided EFT information in the correct manner, the Government remains responsible for--

(i) Making a correct payment; and

(ii) Recovering any erroneously directed funds.

(2) If an uncompleted or erroneous transfer occurs because Contractor's EFT information was incorrect at the time of Government release or was revised within 30 days of Government release of the EFT payment transaction instruction to the Federal Reserve System, and

(i) If the funds are no longer under the control of the payment office, the Government is deemed to have made payment and the Contractor is responsible for recovery of any erroneously directed funds; or

(ii) If the funds remain under the control of the payment office, the Government shall not make payment and the provisions of paragraph (d) shall apply.

(f) *EFT and assignment of claims*. If the contractor assigns the proceeds of this contract as provided for in the assignment of claims terms of this contract, the contractor shall require as a condition of any such assignment that the assignee shall provide the EFT information required by paragraph (i) of this clause to the designated office and shall be paid by EFT in accordance with the terms of this clause. In all respects, the requirements of this clause shall apply to the assignee as if it were the contractor. EFT information that shows the ultimate recipient of the transfer to be other than the contractor, in the absence of a proper assignment of claims acceptable to the Government, is incorrect EFT information within the meaning of Paragraph (d) of this clause.

(g) *Liability for change of EFT information by financial agent.* The Government is not liable for errors resulting from changes to EFT information provided by the contractor's financial agent.

(h) *Payment information.* The payment or disbursing office shall forward to the Contractor available payment information that is suitable for transmission as of the date of release of the EFT instruction to the

Federal Reserve System. The Government may request the Contractor to designate a desired format and method(s) for delivery of payment information from a list of formats and methods the payment office is capable of executing. However, the Government does not guarantee that any particular format or method of delivery is available at any particular payment office and retains the latitude to use the format and delivery method most convenient to the Government. If the Government makes payment by check in accordance with paragraph (a) of this clause, the Government shall mail the payment information to the remittance address in the contract.

(i) *EFT Information*. The contractor shall provide the following information to the designated payment office. The contractor may supply this data for this or multiple contracts (see paragraph (b) of this clause). The Contractor shall designate a single financial agent per contract capable of receiving and processing the EFT information using the EFT methods described in paragraph (c) of this clause. The information required is as follows:

(1) The contract number;

(2) The contractor's name and remittance address as stated in the contract(s);

(3) The signature (manual or electronic, as appropriate), title, and telephone number of the contractor's official authorized to provide this information;

(4) The name, address, and 9-digit Routing Transit Number of the contractor's financial agent; and

(5) The contractor's account number and the type of account (checking, saving or lockbox).

(j) The Contractor shall send all EFT information, and any changes to EFT information to the office designated in paragraph (k) of this clause. The Contractor shall not send EFT information to the payment office, or any other office than that designated in paragraph (k). The Government need not use any EFT information sent to any office other than that designated in paragraph (k).

(k) Designated office:
Name:
Architect of the Capital
Accounting Division
Mailing Address:
2nd and D Streets SW
Ford House Office Building
Washington, DC 20515
Telephone:
(202) 226-2552
Facsimile:
(202) 225-7321

(End of clause)

AOC52.232-9 PAYMENT OF INTEREST ON CONTRACTOR CLAIMS (JUN 2004)

(a) If an appeal is filed by the Contractor from a final decision of the Contracting Officer under the Disputes paragraph of this contract, denying a claim arising under the contract, simple interest on the amount of the claim finally determined owed by the Government shall be payable to the Contractor. Such interest shall be at the rate determined by the Secretary of the Treasury pursuant to Public Law 92-41, 85 Stat. 97, from the date the Contractor furnishes to the Contracting Officer his written appeal under the Disputes paragraph of this contract, to the date of (1) a final judgement by a court of competent jurisdiction, or (2) mailing to the Contractor of a change order, or a supplemental agreement for execution either confirming completed negotiations between the parties or carrying out a decision of a contract appeals board.

(b) Notwithstanding Paragraph (a) above, (1) interest shall be applied only from the date payment was due, if such date is later than the filing of appeal, and (2) interest shall not be paid for any period of time that the Contracting Officer determines the Contractor has unduly delayed in pursuing his remedies before a board of contract appeals or a court of competent jurisdiction.

(End of clause)

AOC52.232-12 ASSIGNMENT - SUPPLEMENT (MAR 2005)

Neither the contract nor any interest therein shall be assigned. However, moneys due or to become due under the contract may be assigned in accordance with the provisions of FAR clause 52.232-23 ASSIGNMENT OF CLAIMS.

(End of clause)

AOC52.233-1 DISPUTES (JUN 2004)

(a) Except as otherwise provided in this contract, any dispute concerning a question of fact arising under this contract which is not disposed of by agreement shall be decided by the Contracting Officer, who shall reduce his decision to writing and mail or otherwise furnish a copy thereof to the Contractor. The decision of the Contracting Officer shall be final and conclusive unless, within 30 days from the date of receipt of such copy, the Contractor mails or otherwise furnishes to the Contracting Officer a written appeal addressed to the head of the agency involved. The decision of the head of the agency or his duly authorized representative for the determination of such appeals shall be final and conclusive. This provision shall not be pleaded in any suit involving a question of fact arising under this contract as limiting judicial review of any such decision to cases where fraud by such official or his representative or board is alleged; **provided, however**, that any such decision shall be final and conclusive unless the same is fraudulent or capricious or arbitrary or so grossly erroneous as necessarily to imply bad faith or is not supported by substantial evidence. In connection with any appeal proceeding under this paragraph, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of his appeal. Pending final decision of a dispute hereunder, the Contractor shall proceed diligently with the performance of the contract and in accordance with the Contracting Officer's decision.

(b) This paragraph does not preclude consideration of questions of law in connection with decisions provided for in Paragraph (a) above. Nothing in this contract, however, shall be construed as making final the decision of any administrative official, representative, or board on a question of law.

(End of clause)

AOC52.233-2 CLAIMS FOR EQUITABLE ADJUSTMENTS - WAIVER AND RELEASE OF CLAIMS

(JUN 2004)

(a) Whenever the Contractor submits a claim for equitable adjustment under any paragraph of this contract which provides for equitable adjustment of the contract, such claim shall include all types of adjustments in the total amounts to which the paragraph entitles the Contractor, including but not limited to adjustments arising out of delays or disruptions or both caused by such change. Except as the parties may otherwise expressly agree, the Contractor shall be deemed to have waived (1) any adjustments to which it otherwise might be entitled under the paragraph where such claims fail to request such adjustments, and (2) any increase in the amount of equitable adjustments additional to those requested in its claim.

(b) Further, the Contractor agrees that, if required by the Contracting Officer, he will execute a release, in form and substance satisfactory to the Contracting Officer, as part of the supplemental agreement setting forth the aforesaid equitable adjustment, and that such release shall discharge the Government, its officers, agents and employees, from any further claims, including but not limited to further claims arising out of delays or disruptions or both, caused by the aforesaid change.

(End of clause)

AOC52.233-3 LIMITATION ON DAMAGES FOR DELAY (JUN 2004)

(a) The Architect shall not be obligated or liable to the Contractor for, and the Contractor hereby expressly waives any claims against the Architect on account of any damages, of any nature whatsoever, which the Contractor, or its subcontractor at any tier may incur as a result of delays, interferences, disruptions, suspensions, changes in sequence or the like arising from or out of any act or omission of the Architect, it being understood and agreed that the Contractor's sole and exclusive remedies in such event shall be a reimbursement of direct costs necessarily incurred as a result of the foregoing causes, and an extension of the contract time, but only in accordance with the provisions of the Contract Documents.

(b) For the purposes of this clause, the term "Damages" shall include all indirect and/or impact costs which shall include, without limitation: unabsorbed Home Office Overhead (including calculations under the "Eichleay Formula"), Idle Labor and Equipment, Loss of Productivity, and Interest; the term "Damages" shall not include on-site direct costs, which shall include direct labor (superintendence, labor, time-keeping, and clerical work) direct materials and supplies (including material handling), direct equipment, restoration and cleanup, overhead and profit (but only as permitted under the clauses “Changes” and “Changes - Supplement”, taxes, insurance, and bonding costs, which will be calculated in accordance with the clauses “Changes” and “Changes - Supplement”. Provided, however, that the accounting practice of treating these costs as "direct" shall be in accordance with

(1) The Contractor's established and consistently followed cost accounting practices for all work; and

(2) FAR Cost Accounting Cost Principles and Procedures (FAR Part 31).

(c) To the extent that any other provision of this contract provides for the payment of damages, as defined in this clause, to the Contractor and is thus inconsistent with the provisions of this clause, such other provision will be superseded hereby with respect to the issue of damages.

(End of clause)

FAR 52.236-5 MATERIALS AND WORKMANSHIP (APR 1984)

(a) All equipment, material, and articles incorporated into the work covered by this contract shall be new and of the most suitable grade for the purpose intended, unless otherwise specifically provided in this contract. References in the specifications to equipment, material, articles, or patented processes by trade name, make, or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition. The Contractor may, at its option, use any equipment, material, article, or process that, in the judgment of the Contracting Officer, is equal to that named in the specifications, unless otherwise specifically provided in this contract.

(b) The Contractor shall obtain the Contracting Officer's approval of the machinery and mechanical and other equipment to be incorporated into the work. When requesting approval, the Contractor shall furnish to the Contracting Officer the name of the manufacturer, the model number, and other information concerning the performance, capacity, nature, and rating of the machinery and mechanical and other equipment. When required by this contract or by the Contracting Officer, the Contractor shall also obtain the Contracting Officer's approval of the material or articles which the Contractor contemplates incorporating into the work. When requesting approval, the Contractor shall provide full information concerning the material or articles. When directed to do so, the Contractor shall submit samples for approval at the Contractor's expense, with all shipping charges prepaid. Machinery, equipment, material, and articles that do not have the required approval shall be installed or used at the risk of subsequent rejection.

(c) All work under this contract shall be performed in a skillful and workmanlike manner. The Contracting Officer may require, in writing, that the Contractor remove from the work any employee the Contracting Officer deems incompetent, careless, or otherwise objectionable.

(End of clause)

FAR 52.236-9 PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS (APR 1984)

(a) The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed and which do not unreasonably interfere with the work required under this contract. The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during contract performance, the Contractor shall trim those limbs or branches with a clean cut and paint the cut with a tree-pruning compound as directed by the Contracting Officer.

(b) The Contractor shall protect from damage all existing improvements and utilities (1) at or near the work site and (2) on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. The Contractor shall repair any damage to those facilities, including those that are

property of a third party, resulting from failure to comply with the requirements of this contract or failure to exercise reasonable care in performing the work. If the Contractor fails or refuses to repair the damage promptly, the Contracting Officer may have the necessary work performed and charge the cost to the Contractor.

(End of clause)

AOC52.236-1 ACCESS TO WORK (JUN 2004)

(a) The Contracting Officer or his representative may visit and inspect the Contractor's plant, without advance notice, at any time during the course of this contract, and he shall be granted every available assistance to facilitate such inspection.

(b) The Contracting Officer and proper members of his staff shall at all times have access to the work, and the Contractor shall provide proper and safe facilities for such access and for inspection.

(End of clause)

AOC52.236-2 OTHER CONTRACTS AND WORK (JUN 2004)

(a) The Contractor shall fully inform himself as to conditions relating to construction and labor under which other work, if any, is being performed, or is to be performed, by or for the Government, by contract or otherwise, where such work may affect or be affected by, operations under this Contract.

(b) Notwithstanding the performance by other parties of work at the site during performance of this contract, the Contractor shall prosecute the work diligently and continuously, and he shall cooperate in every way with such other parties. The Contractor shall give such other parties, to the extent their work is affected by his work, all information necessary for the proper execution of their work, without delay. The Contractor shall so arrange and conduct his work that other parties may complete their work at the site according to schedule. All other work under the instant contract shall be carefully coordinated with work under such other contracts.

(End of clause)

AOC52.236-3 ACCIDENT PREVENTION AND SAFETY AND HEALTH PROGRAMS - CONSTRUCTION (SEP 2004)

(a) The Contractor shall take proper safety and health precautions to protect the work, the workers, the public, and the property of others and comply with the safety and health standards published in 41 C.F.R. Part 50-205, including any matters incorporated by reference therein. He shall also be responsible for all materials delivered and work performed until completion and final acceptance of the entire contract work, except for any completed unit thereof which theretofore may have been finally accepted.

(b) *Williams-Steiger Occupational Safety and Health Act.* The Contractor shall also comply in all aspects of the job with the regulations issued by the Secretary of Labor pursuant to the Williams-Steiger Occupational Safety and Health Act of 1970, as set forth in Title 29 of the Code of Federal Regulations. The Contractor shall bring to the attention of the Architect any work encountered which may involve entry into a suspected

confined space as defined by OSHA. A determination will be made by the Architect, and if the area is deemed a permit required confined space, additional protective measures will be needed, per OSHA requirements.

(c) *National Fire Protection Association standards.* The Contractor shall comply with all applicable standards of the National Fire Protection Association relative to fire prevention, except to the extent that more exacting requirements are specified or imposed by the Contracting Officer. The Contractor shall keep and properly maintain fire prevention devices at the job site and shall take all possible precautions deemed necessary by the Government representative in charge of the work.

(d) *Protection of property and persons.* (1) The Contractor shall protect all of his material and work at the site, whether incorporated in the work or not, against damage or loss from any cause, and he shall take all necessary precautions against damage to all other work and material on the site. He shall provide and maintain necessary safeguards for protection of his employees, Government employees and the public generally, and he shall take all other proper precautions for their protection against injury. He shall comply with all directives and regulations of the Contracting Officer and other proper authorities relative to the use of public property.

(2) The Contractor shall protect all electric, telephone, computer facilities, water, gas, sewer, steam and other underground utility lines, in sidewalks, streets or other areas in, under or around the site, to the satisfaction of the Contracting Officer, the Government of the District of Columbia, and all other authorities having jurisdiction.

(3) The performance of work at the site by other parties shall not relieve the Contractor from any liability for loss or damage or from his obligations under this contract. No agreement or arrangement between the Contractor and others as to a division or proportionate share of liability for loss or damage incurred, or of the cost of insurance, shall in any way relieve the Contractor of such liability or his obligations under this contract.

(e) The Contractor shall comply with the requirements of FAR 52.236.13, Accident Prevention. In the event that conditions on the site pose an imminent danger or threat to the Contractor's workers, the public, Government employees, other persons, or to Capitol complex structures and property of historical significance, the Contracting Officer can verbally order the Contractor to suspend work operations in the specified area until said conditions are corrected to the Contracting Officer's satisfaction. The Contracting Officer shall promptly issue a written order to suspend the work to the Contractor formalizing the specifics of the verbal suspension of work.

(f) The Contractor shall not be entitled to any equitable adjustment of the contract price or extension of the performance schedule on any stop work order issued under this clause.

(End of clause)

AOC52.236-4 CUTTING AND PATCHING (JUN 2004)

Prior to initiation of the work operations of either cutting or patching, as a necessary requirement of the work under this contract, of any structural component or of lintels, stair systems, piping, duct work, vessels,

equipment and like items in the building, the Contractor shall consult with the Contracting Officer and follow explicitly his directions and stated requirements concerning methods, materials, the manner in which the work is performed, and the level of competence and skill possessed by Contractor's employees, or those of subcontractors, who are proposed to be employed in said cutting and/or patching operations.

(End of clause)

AOC52.236-5 CLEANING AND RESTORING (JUN 2004)

(a) The contractor shall remove dirt and debris resulting from the operations under this contract daily.

(b) The Contractor shall, as a condition precedent to the final acceptance of the work, remove from the site of the work all remaining plant, installations, temporary barricades, temporary facilities, equipment, tools, materials, refuse, rubbish and waste, used or accumulated in connection with, but not incorporated in, the work, unless otherwise specified or directed, and he shall leave the buildings, grounds, streets, and all public places occupied by him in a thoroughly clean, neat and satisfactory condition.

(End of clause)

AOC52.236-8 SCHEDULING OF WORK (AUG 2004)

(a) The Contractor shall, before commencing work on the contract or another period of time determined by the Contracting Officer, prepare and submit to the Contracting Officer for approval three copies of a practicable schedule showing the order in which the Contractor proposes to perform the work, and the dates on which the Contractor contemplates starting and completing the several salient features of the work (including acquiring materials, plant, and equipment). The schedule shall be in the form of a progress chart of suitable scale to indicate appropriately the percentage of work scheduled for completion by any given date during the period. If the Contractor fails to submit a schedule within the time prescribed, the Contracting Officer may withhold approval of partial payments until the Contractor submits the required schedule.

(b) The Contractor shall furnish sufficient forces, construction plant and equipment, and shall work such hours as necessary to insure prosecution of work in accordance with the approved schedule. If, in the opinion of the Contracting Officer, the Contractor falls behind in the scheduled progress, the Contractor shall take such steps as may be necessary to improve its progress, including those that may be required by the Contracting Officer, without additional cost to the Government. In this circumstance, the Contracting Officer may require the Contractor to increase the number of shifts, overtime operations, days of work, and/or the amount of construction plant, and to submit for approval any supplementary schedule or schedules in chart form as the Contracting Officer deems necessary to demonstrate how the approved rate of progress will be regained. The provisions of this subparagraph shall not be construed as prohibiting work on Saturdays, Sundays and holidays and, for work performed in the District of Columbia, Presidential Inauguration Day, if the Contractor so elects and if approved.

(c) Failure of the Contractor to comply with the requirements of the Contracting Officer under this clause shall be grounds for a determination by the Contracting Officer that the Contractor is not prosecuting the work with sufficient diligence to ensure completion within the time specified in the contract. Upon making this determination, the Contracting Officer may terminate the Contractor's right to proceed with the work, or any

separable part of it, in accordance with the default terms of this contract.

(End of clause)

AOC52.236-9 SCHEDULE OF VALUES (JUN 2004)

(a) The Contractor shall, in accordance with the requirements of the Contracting Officer, prepare and submit for approval a schedule of estimated values of all parts of the work, and shall submit such quantity breakdowns pertinent thereto as the Contracting Officer may deem necessary for the proper checking of partial payment requisitions and for other administrative purposes. The total of the schedule of values shall equal the amount of the contract. The values employed in making this schedule will be used only for determining partial payments; they will not be used as a basis for determining an increase or decrease in the contract price. The listings and subdivisions of this schedule for estimated costs and quantity breakdowns shall be as approved by the Contracting Officer.

(b) The submission and approval of the schedule of values shall be a condition precedent to the making of partial payments.

(End of clause)

AOC52.236-10 SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION (JUN 2004)

(a) The Contractor shall keep on the site of the work a copy of the drawings and specifications, and of approved shop drawings, product data and samples and shall at all times give the Contracting Officer access thereto. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. In case of difference between drawings and specifications, or in case of discrepancy either within the figures, within the drawings, or within the specifications, the matter shall be promptly submitted to the Contracting Officer, who shall promptly make a determination in writing. Any adjustment by the Contractor without such a determination shall be at its own risk and expense. The Contracting Officer shall furnish from time to time such detailed drawings and other information he considers necessary, unless otherwise provided.

(b) “Shop drawings” means drawings submitted to the Government by the Contractor, subcontractor, any lower tier subcontractor pursuant to a construction contract, showing in detail (1) the proposed fabrication and assembly of structural elements and (2) the installation (i.e., form, fit, and attachment details) of materials or equipment. It includes drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, and similar materials furnished by the Contractor to explain in detail specific portions of the work required by the contract.

(c) The Contractor shall submit to the Contracting Officer for approval shop drawings, product data and samples as required under the various sections of this Project Manual. The Contractor shall coordinate all such submittals, and review them for accuracy, completeness, and compliance with contract requirements and shall indicate its approval thereon as evidence of such coordination and review. Shop drawings, product data, or samples submitted to the Contracting Officer without evidence of the Contractor's approval may be returned for re-submission. The Contracting Officer will indicate an approval or disapproval of the shop drawings and if not approved as submitted shall indicate the Government's reasons therefor. Any work done

before such approval shall be at the Contractor's risk. Approval by the Contracting Officer shall not relieve the Contractor from responsibility for any errors or omissions in such submittals, nor from responsibility for complying with the requirements of this contract, except with respect to variations described and approved in accordance with Paragraph (d) below.

(d) If shop drawings, product data, or samples show variations from the contract requirements, the Contractor shall describe such variations in writing, separate from the drawings, at the time of submission. If the Contracting Officer approves any such variation, the Contracting Officer shall issue an appropriate contract modification, except that, if the variation is minor or does not involve a change in price or in time of performance, a modification need not be issued.

(e) Upon completing the work under this contract, the Contractor shall furnish a complete set of all shop drawings as finally approved. These drawings shall show all changes and revisions made up to the time the equipment is completed and accepted. The Government may duplicate, use, and disclose in any manner and for any purpose shop drawings, product data or samples delivered under this contract.

(f) The provisions of this entire paragraph shall be included in all subcontracts at any tier.

(End of clause)

AOC52.236-12 PRODUCT DATA AND SAMPLES (JUN 2004)

(a) Product data shall mean information (e.g., catalog cuts, standard illustrations, drawings, performance charts, data and brochures) pertinent to a particular product, equipment or material required as a part of the work. Product data is required to establish, for the purposes of evaluation and approval, details of the product offered in response to specifications elsewhere in the contract documents. Product data pertains to significant elements such as (1) design; (2) materials; (3) components; (4) performance characteristics; and (5) methods of manufacture, assembly, construction, or operation. The term includes, in addition to the above, the manufacturer's standard printed recommendations for application and use, compliance with recognized standards of trade associations and testing agencies, and the application of their labels and seals (if any).

(b) Samples are physical examples of materials, equipment or workmanship that will be used by the Contracting Officer to establish standards by which the work will be judged.

(c) Samples not subject to destructive tests may be retained by the Contracting Officer until completion of the work; they will then be returned to the Contractor, at his own expense, if he so requests in writing.

(End of clause)

FAR 52.242-14 SUSPENSION OF WORK (APR 1984)

(a) The Contracting Officer may order the Contractor, in writing, to suspend, delay, or interrupt all or any part of the work of this contract for the period of time that the Contracting Officer determines appropriate for the convenience of the Government.

(b) If the performance of all or any part of the work is, for an unreasonable period of time, suspended,

delayed, or interrupted (1) by an act of the Contracting Officer in the administration of the contract, or (2) by the Contracting Officer's failure to act within the time specified in this contract (or within a reasonable time if not specified), an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) necessarily caused by the unreasonable suspension, delay, or interruption, and the contract modified in writing accordingly. However, no adjustment shall be made under this Article for any suspension, delay or interruption to the extent that performance would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the Contractor, or for which an equitable adjustment is provided for or excluded under any other term or condition of this contract.

(c) A claim under this article shall not be allowed (1) for any costs incurred more than 20 days before the Contractor shall have notified the Contracting Officer in writing of the act or failure to act involved (but this requirement shall not apply as to a claim resulting from a suspension order), and (2) unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of the suspension, delay, or interruption, but not later than the date of final payment under the contract.

(End of clause)

FAR 52.243-4 CHANGES (AUG 1987)

(a) The Contracting Officer may, at any time, without notice to the sureties, if any, by written order designated or indicated to be a change order, make changes in the work within the general scope of the contract, including changes-

(1) In the specifications (including drawings and designs);

(2) In the method or manner of performance of this work;

(3) In the Government-furnished facilities, equipment, materials, services, or site; or

(4) Directing acceleration in the performance of the work.

(b) Any other written or oral order (which, as used in this paragraph (b), includes direction, instruction, interpretation, or determination) from the Contracting Officer that causes a change shall be treated as a change order under this clause; Provided, that the Contractor gives the Contracting Officer written notice stating-

(1) The date, circumstances, and source of the order; and

(2) That the Contractor regards the order as a change order.

(c) Except as provided in this clause, no order, statement, or conduct of the Contracting Officer shall be treated as a change under this clause or entitle the Contractor to an equitable adjustment.

(d) If any change under this clause causes an increase or decrease in the Contractor's cost of, or the time required for, the performance of any part of the work under this contract, whether or not changed by any such order, the Contracting Officer shall make an equitable adjustment and modify the contract in writing. However, except for an adjustment based on defective specifications, no adjustment for any change under

paragraph (b) of this clause shall be made for any costs incurred more than 20 days before the Contractor gives written notice as required. In the case of defective specifications for which the Government is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the Contractor in attempting to comply with the defective specifications.

(e) The Contractor must assert its right to an adjustment under this clause within 30 days after (1) receipt of a written change order under paragraph (a) of this clause or (2) the furnishing of a written notice under paragraph (b) of this clause, by submitting to the Contracting Officer a written statement describing the general nature and amount of the proposal, unless this period is extended by the Government. The statement of the proposal for adjustment may be included in the notice under paragraph (b) of this clause.

(f) No proposal by the Contractor for an equitable adjustment shall be allowed if asserted after final payment under this contract

(End of Clause)

AOC52.243-1 CHANGES - SUPPLEMENT (JUN 2004)

(a) *Definitions.* (1) A "change order" is a unilateral contract modification, signed by the Contracting Officer, which describes and identifies a particular change in the requirements as permitted by the FAR clause, 52.243-4, "Changes" and authorizes the contractor to begin performance with the changed requirements. The change order may reference pertinent oral or written directives, provide an adjustment to the contract price and/or time for performance, and direct the contractor to submit a proposal for definitization of the change order.

(2) A "supplemental agreement" is a bilateral contract modification, signed by the contractor and the Contracting Officer, which either authorizes the contractor to begin performance with the changed requirements in accordance with the equitable adjustment agreed to prior to commencement of performance of the changed requirements or definitizes a change order after agreement of an equitable adjustment to the contract.

(3) Request for Proposal. A request by the Contracting Officer or his duly authorized representative for the contractor to submit a proposal for requirements contemplated to be changed. Such proposal shall be submitted within the time limit specified in the request and in accordance with the requirements and limitations of this clause.

(b) *Authorization of changes***.** All changes to contract requirements will be authorized in writing by the Contracting Officer through one of the following methods:

(1) A Supplemental Agreement, with the concurrence of the contractor; or

(2) A unilateral Change Order.

(c) *Submission of proposals and cost breakdowns by the contractor.*

(1) Proposals for changes to the contract requirements shall include a brief description of the change;

a breakdown of costs as outlined hereinafter; and a time impact analysis (fragnet).

(2) In considering proposals for changes involving added requirements, omitted requirements, or any combination thereof, the Contracting Officer or his duly authorized representative will make check-estimates in such detail as he deems necessary with the view of arriving at equitable adjustments. With each proposal, the contractor shall submit separately an itemized breakdown as per "Exhibit A" hereof, which shall include, but not be limited to, the following:

(i) Direct labor costs;

(ii) Social Security and Unemployment Insurance Taxes;

(iii) Workmen's compensation and general liability insurance;

(iv) Direct material quantities and unit prices (separated into trades);

(v) Construction equipment;

(vi) Overhead; and

(vii) Profit.

(3) If the contractor believes that the change in the contract requirements affects the contract period of performance, as required by AOC52.211-5, Commencement, Prosecution, and Completion of Work, of the Supplementary Conditions, appropriate substantiation must be submitted for evaluation/review.

(4) A complete proposal, including breakdown of cost and time impact, shall be submitted by the contractor within the time frame stipulated in calendar days by the Government for each proposed change. Generally, complete proposals shall be submitted by the contractor within 7 calendar days after the contractor receives the request for proposal, although this time frame may be adjusted for more complex or more urgent requirements. Except as provided by an individual contract modification, no payment for a change order will be made until a supplemental agreement has been signed by the contractor and the Contracting Officer. If complete proposals are not received timely, the Contracting Officer, after consultation with his authorized representative, may determine the cost of the change and the time impact and issue a change order based upon this determination with the stipulation that if a supplemental agreement is not negotiated within a reasonable amount of time, this determination will be final and conclusive, subject only to the contractor's rights of appeal as provided in AOC52.233-1, Disputes, of the General Conditions.

(d) *Allowances for overhead and profit.* (1) The following percentages will be allowed for overhead and profit:

(i) The contractor shall receive, as a percentage of the cost of all work performed by his own organization, an amount not to exceed 10% overhead and not to exceed 10% profit; and

(ii) If subcontractor(s) are involved in the change, a fee in an amount not to exceed 10% as a percentage of the total price of the subcontractor portion of the change.

(iii) Subcontractor(s) to the prime contractor (first tier subcontractor(s)) shall receive, as a percentage of the cost of all work performed by or for it, a total amount not to exceed 10% overhead and not to exceed 10% profit.

(iv) The percentages for fees, overhead, and profit permitted by the above shall be allowed only for the contractor and its first tier subcontractors. Percentages for fees, overhead, and profit in any amount will not be allowed for subcontractors of any other tier.

(2) Percentages for overhead allowed are deemed to include, but shall not be limited to, the following:

(i) Field Overhead Items.

(A) Trailer;

(B) Storage Facilities;

(C) Contractor's and subcontractor's superintendence;

(D) Construction equipment/tools, except those that are specially required for a specific change;

(E) Utilities;

(F) Contractor's and subcontractor's field office, administrative/support staff;

(G) Cost of preparing record drawing changes, correspondence, etc., relating to the contract;

(H) Job site safety aids; and

(I) Cleaning and maintenance of nuisance debris from jobsite.

(ii) Office Overhead Items for Contractor and Subcontractors.

(A) Maintenance/operation of principal or branch offices;

(B) Personnel costs;

(C) Cost for preparing correspondence, fragnets, etc., relating to the contract; and

(D) Cost of insurance and bonds, except for insurance costs relating to direct labor, as outlined in "Exhibit A" .

(iii) For changes which include custom items unique to the project and which are fabricated

off-site, the fabricator, whether the contractor or a subcontractor at any tier, shall furnish a breakdown of costs associated with the work in the fabricating plant. This breakdown shall include labor, material, equipment and overhead/plant costs in sufficient detail to allow for review by the Contracting Officer or his duly authorized representative. Costs charged to overhead/plant shall be allowable costs for the fabricator, whether he is the contractor or a subcontractor at any tier, provided that the costs claimed are consistent with the provisions of Subpart 31.203 of the Federal Acquisition Regulation (Chapter 1, Title 48, Code of Federal Regulations). An amount not to exceed 10% of the cost of the fabricated item will be allowed for the fabricator's profit. If the fabricator is a subcontractor, the overhead and profit percentages for the contractor and any subcontractor at a higher tier having a contractual relationship with the fabricator shall be allowed in accordance with this clause.

(e) *Changes involving decreases in price.* For changes involving only a decrease in price, the contractor and subcontractors shall return as credit for overhead and profit those same percentages which are allowed for like changes involving increases in price. On changes involving both an increase and a decrease in price, overhead and profit will be allowed only on the net increase.

(f) *Changes involving increases or decreases on basis of contract specified unit prices.* No percentages for overhead and profit will be added to, or deleted from, any unit prices in event of an increase or decrease in the contract requirements on the basis of contractual unit prices.

EXHIBIT A
TYPICAL FORM OF BREAKDOWN FOR PRICE ADJUSTMENT

SUBCONTRACTORS' BREAKDOWN

Items Involved	**Quan-tities**	**Unit Cost**	**Equip-ment**	**Material**	**Labor**	**Extensions**		**Unit Cost**
						Totals	**Final Totals**	
Excavation (Identify)								
• Volume								
• Crane Operator								
• Laborers								

Shoring (Identify)								
• Area								
• Welder								
Subcontractor Total								

PRIME CONTRACTOR'S BREAKDOWN

Items Involved	**Quan-tities**	**Unit Cost**	**Equip-ment**	**Material**	**Labor**	**Extensions**		**Unit Cost**
						Totals	**Final Totals**	
West Wall (Cinder Block)								
• Area								
• Block 8x8x16								
• Mortar								
• Mason								
• Laborer								
Subtotal								
Prime Contractor's Total								
Prime Contractor's Overhead and Profit on Subcontractor								
Total								

(End of clause)

AOC52.244-1 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK (SEP 2005)

(a) The Contractor is responsible for coordination of all work performed by its own workforce and those of its subcontractors. Each subcontractor shall be experienced in and capable of performing in a satisfactory manner all work in his/her speciality, and shall meet the standard of competence established for the Contractor.

(b) The Contractor shall be responsible for all acts of subcontractors employed by him under this contract, and for their compliance with all terms and provisions of the contract applicable to their performance. The Contractor shall continuously coordinate the work of all sub-contractors to assure proper processing and progress of the Work. The Contractor shall require each subcontractor to (1) examine the project schedule, shop drawings and the work of other trades and all sections of the specifications to the extent necessary for satisfactory installation of his work, and connection between his work and the work of other trades; (2) coordinate his work accordingly; and (3) cooperate with other trades toward timely and satisfactory completion of the entire Work.

(c) Organization of the specifications into sections and subsections and the arrangement of drawings shall not control the Contractor in dividing work among subcontractors or in establishing the extent of work to be performed by any trade.

(d) The Government reserves the right to require dismissal of any subcontractor who, by reason of previous unsatisfactory work on AOC projects or for any other reason, is considered by the Contracting Officer to be incompetent or otherwise objectionable for performing work under this contract.

(e) Nothing contained in the contract documents shall create any contractual relations between any subcontractor and the Government.

(End of clause)

AOC52.245-2 GOVERNMENT-FURNISHED PROPERTY (NOV 2004)

(a) For the purposes of this clause, Government-furnished "property" includes cell phones and telephones, personal digital assistants, computers (including laptops), electronic devices, services such as network access, tools, furnished space, storage, utilities, furnishings, equipment, and any other item or service provided by the AOC to the contractor.

(b) No AOC equipment or property can be provided under this contract unless specifically negotiated as part of the award price. If, after contract award, it becomes necessary or advisable to issue AOC property to the contractor, the contract price shall be reduced by a reasonable amount that reflects the price the contractor would pay if providing the property.

(c) The Contracting Officer's Technical Representative (COTR) for this contract is responsible for coordinating the issuance and return of Government-furnished property.

(d) Any Government-furnished property provided to the contractor for use during performance of this

contract shall be issued to the contractor's representative and recorded on AOC Form 1423, AOC PROPERTY ISSUED TO CONTRACTORS. The contractor's representative shall be responsible for the ensuring the proper care and use of the Government-furnished property, whether used by the contractor representative or another contractor employee. Government-furnished property provided by the AOC can be used only for the conduct of official business on behalf of the AOC. The contractor is specifically prohibited from using AOC-furnished property for personal use or to conduct operations that benefit other Government agency contracts or other contractor activities that do not directly support AOC contracts.

(e) All information technology property that requires interface or connection to the AOC network must be provided by the AOC. The use of non-AOC IT property that requires interface or connection to the AOC network is strictly prohibited.

(f) All contractor employees who require access to the AOC network or who are issued a personal digital assistant must complete and sign the "Non-disclosure Agreement for Contract Employees Conditional Access to Sensitive but Unclassified Information for The Architect of The Capitol" before access will be granted. The COTR is responsible for providing the non-disclosure agreements to the AOC Office of Information Resources Management.

(g) All Government-furnished property shall be returned by the contractor to the COTR in the same condition as issued, with allowances for wear and tear that occurs with reasonable care and use. Failure to return Government-furnished property or the return of Government-furnished property that has not been properly maintained and used may result in a reduction to the contract price that reflects the market replacement value of the property or the market price to repair or restore the property to its condition when issued to the contractor.

(End of clause)

AOC52.246-1 FINAL INSPECTION AND ACCEPTANCE - CONSTRUCTION - SUPPLEMENT (SEP 2005)

(a) No inspection or other action of the Government shall be construed to constitute a final acceptance of any portion of the work under this contract until all work under the contract is completed. None of the work under the contract shall be deemed to be finally accepted until the Contractor, upon completion and final inspection of all work, is notified in writing of final acceptance of work under the contract, or in lieu thereof, until final payment of the final voucher as prescribed in FAR 52.232-5, Payments Under Fixed-Price Construction Contracts. The provisions of FAR clause 52.246-12, Inspection of Construction are hereby modified by the provisions of this paragraph with respect to the finality of acceptance of any portion of the work by the Government prior to completion of all work under the contract.

(b) The Contractor shall notify the Contracting Officer, at least 10 days in advance, of the date the work will be fully complete and ready for final inspection. Any additional costs incurred by the Government due to necessary reinspection of work found not ready for final inspection upon the Contractor's notice of completion will be charged to the Contractor and deducted from the contract price.

(End of clause)

AOC52.246-6 ADDITIONAL WARRANTY COVERAGE (JUN 2004)

If the Contractor receives from any manufacturer, supplier or subcontractor additional warranty coverage on the whole or any component of the work required by this contract, in the form of time including any pro rata arrangements, or the Contractor generally extends to his commercial customers a greater or extended warranty coverage, the Government shall receive corresponding warranty benefits.

(End of clause)

FAR 52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these addresses: www.gsa.gov or www.govcon.com

CLAUSE TITLE	DATE	FAR NUMBER
GRATUITIES	APR 1984	52.203-3
COVENANT AGAINST CONTINGENT FEES	APR 1984	52.203-5
RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT	JUL 1995	52.203-6
AUDIT AND RECORDS - NEGOTIATION	JUN 1999	52.215-2
CONTRACT WORK HOURS AND SAFETY STANDARDS ACT - OVERTIME COMPENSATION	SEP 2000	52.222-4
DAVIS-BACON ACT	JUL 2005	52.222-6
WITHHOLDING OF FUNDS	FEB 1988	52.222-7
PAYROLLS AND BASIC RECORDS	FEB 1988	52.222-8
APPRENTICES AND TRAINEES	FEB 1988	52.222-9
COMPLIANCE WITH COPELAND ACT REQUIREMENTS	FEB 1988	52.222-10
SUBCONTRACTS (LABOR STANDARDS)	FEB 1988	52.222-11
CONTRACT TERMINATION - DEBARMENT	FEB 1988	52.222-12
COMPLIANCE WITH DAVIS-BACON AND RELATED ACT REGULATIONS	FEB 1988	52.222-13
DISPUTES CONCERNING LABOR STANDARDS	FEB 1988	52.222-14
CERTIFICATION OF ELIGIBILITY	FEB 1988	52.222-15
EQUAL OPPORTUNITY	APR 2002	52.222-26
AFFIRMATIVE ACTION COMPLIANCE REQUIREMENTS FOR CONSTRUCTION	FEB 1999	52.222-27
EQUAL OPPORTUNITY FOR SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA AND OTHER ELIGIBLE VETERANS	DEC 2001	52.222-35
AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES	JUN 1998	52.222-36
EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS, VETERANS ON THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS	DEC 2001	52.222.37
DRUG-FREE WORKPLACE	MAY 2001	52.223-6
PATENT INDEMNITY- CONSTRUCTION CONTRACTS	APR 1984	52.227-4

ADDITIONAL BOND SECURITY	OCT 1997	52.228-2
IRREVOCABLE LETTER OF CREDIT	DEC 1999	52.228-14
FEDERAL, STATE AND LOCAL TAXES	APR 2003	52.229-3
ASSIGNMENT OF CLAIMS	JAN 1986	52.232-23
DIFFERING SITE CONDITIONS	APR 1984	52.236-2
SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK	APR 1984	52.236-3
SUPERINTENDENCE BY THE CONTRACTOR	APR 1984	52.236-6
PERMITS AND RESPONSIBILITIES	NOV 1991	52.236-7
OTHER CONTRACTS	APR 1984	52.236-8
USE AND POSSESSION PRIOR TO COMPLETION	APR 1984	52.236-11
ACCIDENT PREVENTION	NOV 1991	52.236-13
PRE-CONSTRUCTION CONFERENCE	FEB 1995	52.236-26
BANKRUPTCY	JUL 1995	52.242.13
GOVERNMENT PROPERTY (FIXED-PRICE CONTRACTS)	MAY 2004	52.245-2
INSPECTION OF CONSTRUCTION	AUG 1996	52.246-12
WARRANTY OF CONSTRUCTION	MAR 1994	52.246-21
TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED-PRICE)	MAY 2004	52.249-2
ALTERNATE I	SEP 1996	
DEFAULT (FIXED-PRICE) CONSTRUCTION	APR 1984	52.249-10

(End of clause)

END OF GENERAL CONDITIONS

SUPPLEMENTARY CONDITIONS

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SUPPLEMENTARY CONDITIONS

AOC52.201-1 CONTRACTING OFFICER'S AUTHORITY (JUN 2004)

The Contracting Officer is the only person authorized to make or approve any changes in any of the requirements of this contract, notwithstanding any provision contained elsewhere in this contract. In the event that the Contractor makes any change at the direction of any person other than the Contracting Officer, the change will be considered to have been made without authority and no adjustment will be made in the contract price to cover any increase in costs incurred as a result thereof.

(End of clause)

AOC52.201-2 CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (COTR) (MAR 2005)

The Government shall provide the name, address and telephone number of the COTR at the time of contract award and the duties thereby delegated to that person. Any subsequent change to the individual or the individual's responsibilities will be confirmed in writing by the Contracting Officer. In no instance will the COTR be delegated authority to order any change in the contractor's performance which would affect (a) cost or schedule for contracts for services or supplies, or (b) scope, the completion date for intermediate phases or milestones, or overall completion date for contracts for construction.

(End of clause)

FAR 52.211-12 LIQUIDATED DAMAGES (SEP 2000)

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of **$1,042.00** for each calendar day of delay until the work is completed or accepted.

(b) If the Government terminates the Contractor's right to proceed, liquidated damages will continue to accrue until the work is completed. These liquidated damages are in addition to excess costs of repurchase under the Termination clause.

(End of clause)

AOC52.211-5 COMMENCEMENT, PROSECUTION AND COMPLETION OF WORK (SEP 2004)

(a) **All work to be performed under this contract shall be completed within 630 calendar days, with construction periods of July 13, 2006 to September 10, 2006 and July**

13, 2007 to September 10, 2007, if construction is able to begin in 2006, after the date of contract award. If construction is not able to be started in 2006, then all work to be performed under this contract shall be completed within 945 calendar days, with construction periods of July 13 2007, to September 13, 2007 and July 13, 2008 to September 13, 2008, after the date of contract award. No work under this contract shall be performed on Saturdays, Sundays or Federal holidays and, for work performed in the District of Columbia, Presidential Inauguration Day, except with prior approval of the Contracting Officer.

(b) Time for completion of the contract work will be adjusted only in accordance with applicable clauses in the GENERAL CONDITIONS (e.g., "Differing Site Conditions", "Changes", “Changes - Supplement”, "Suspension of Work").

(End of clause)

AOC52.223-6 SPECIAL SECURITY REQUIREMENTS - U.S. SUPREME COURT (AUG 2005)

(a) All contractor personnel including both prime contractor and subcontractor personnel (“contractor personnel”) performing work for or at the Supreme Court under this contract will be subject to a security investigation.

(b) The contractor will provide the Supreme Court Police the full name, social security number, place of birth, and date of birth for all contractor personnel performing work for or at the Supreme Court, in a single package within one week of contract award. All security investigation requests will be identified with the AOC contract number under which the work will be performed.

(c) Contractor personnel will not be permitted access to the Supreme Court job site until a completion of a favorable Supreme Court Police security investigation. Upon completion of a favorable security investigation contractor personnel will be issued a Supreme Court contractor identification card. The contractor identification card shall be returned immediately to the Supreme Court Police upon completion of work on site by the individual, the contractor’s completion of all work on site under the contract, the expiration date of the contractor identification card, or on demand by the Supreme Court Police. Any contractor employee denied access to the site of work on a contract or task/delivery order as a result of a security investigation may not apply for access to any other AOC/U.S. Supreme Court contract or task/delivery order work site.

(d) Any of the contractor’s personnel who are perceived by the Contracting Officer or the Marshall’s Office of the Supreme Court as a security risk, as a result of evidence discovered during the security investigation, will not be issued a Supreme Court contractor identification card and will be denied access to the job site. The contractor is required and will be directed by the Contracting Officer to remove such person from performance of any of the contract work,

whether it be on of off the work site. Any contractor personnel perceived as a security risk after being issued a contractor identification card, may be ordered to return the identification card immediately to the Supreme Court police and may be denied access to the job site.

(e) In addition to the security investigation and contractor identification requirements identified above, all contractor personnel permitted on site at the Supreme Court must be escorted by AOC personnel assigned to work at the Supreme Court under the Superintendent, Facilities Manager Office. Contractor personnel found within the Supreme Court premises without an escort will be removed from the site. All contractor personnel must wear the ID badge whenever on the Capitol complex premises or when attending off-site functions on behalf of the AOC. ID badges must be worn in such a manner that contractor personnel can be easily identified as such.

(f) All vehicles and contents used by the contractor and/or the Contractor's subcontractors or suppliers which enter or leave Supreme Court property during the performance of the work, will be subject to inspection, identification and clearance procedures. The contractor will notify and provide a bill of lading to the Supreme Court Police 24 hours in advance of any vehicles arriving at the job site. Vehicles are to report to the Supreme Court Police at the Second and East Capitol Street entrance, or as otherwise instructed, for inspection. In addition to the inspection of the vehicle and its contents, all drivers and helpers will be required to pass through a Magnetometer. All persons possessing weapons or contraband will be subject to arrest and prosecution.

(g) The Contractor is fully responsible to return:

(1) The ID badge of any individual employee, including subcontractor personnel, who is removed for any reason including but not limited to illness, or dismissal;

(2) The ID badges of all contractor employees, including subcontractor personnel, whose performance under the contract is completed in advance of final contract job completion; and

(3) All outstanding ID badges issued for the contractor and its employees, including subcontractor personnel, within 24 hours of on site contract job completion.

(h) ID badges are to be hand delivered by the contractor within 24 hours of any of the events listed under (g) above to the Contracting Officer's Technical Representative (COTR).

(End of clause)

AOC52.223-8 DELIVERY VEHICLE INSPECTION REQUIREMENTS (MAR 2006)

(a) All vehicles and contents used by the Contractor or his subcontractors which enter or

leave United States Government property during performance of work under this contract will be subject to clearance, inspection, and identification procedures conducted by the United States Capitol Police.

(b) *Mobile Vehicle and Cargo Inspection System (Mobile VACIS).* All delivery vehicles carrying fuel, garbage, or similar cargo that cannot be offloaded for inspection and security screening shall utilize the Mobile VACIS located at Third and Pennsylvania Avenue, NW, Washington, DC, for inspection prior to making deliveries to any building within the Capitol Complex, including, but not limited to, the U.S. Capitol Building; the U.S. Botanic Garden; the Hart, Dirksen, and Russell Senate Office Buildings; the Rayburn, Longworth, Cannon, and Ford House Office Buildings; the Thomas Jefferson, John Adams, and James Madison Memorial Library of Congress buildings; the Capitol Power Plant; the Capitol Visitors Center; and the U.S. Supreme Court and Thurgood Marshall Federal Judiciary Buildings.

(1) For deliveries requiring Mobile VACIS inspection, within seven calendar days or prior to the first delivery, the contractor shall provide the following information to the U.S. Capitol Police:

(i) List of drivers;

(ii) Date of birth for each driver;

(iii) Social Security Number of each driver;

(iv) Vehicle make;

(v) Vehicle model;

(vi) License tag number and state where vehicle is licensed;

(vii) Color of vehicle; and

(viii) Contractor name, if shown on the vehicle.

(2) Information for deliveries made through the Mobile VACIS unit must be faxed to (202) 228-4313. For verification of receipt, the contractor may call (202) 224-9728.

(3) Updates to the above information for Mobile VACIS deliveries must be sent to the U.S. Capitol Police throughout the period of performance of the contract.

(c) *4700 Shepherd Parkway SW inspection facility*. All other vehicles making deliveries to the above listed locations except for the Thomas Jefferson, John Adams, and James Madison Memorial Library of Congress buildings and the U.S. Supreme Court shall utilize the off-site inspection and screening facilities at 4700 Shepherd Parkway SW, Washington DC 20032.

(End of clause)

AOC52.236-11 SUBMITTALS (JUN 2004)

(a) The Contractor shall deliver all required submittals within the times specified elsewhere in this contract. Unless specifically stated otherwise, four (4) sets of each item shall be delivered by the contractor to the Contracting Officer's Technical Representative. An in-depth description of these submittals can be found in the appropriate technical sections of the specification. Any Schedule of Work prepared shall reflect delivery of these items. Failure to provide timely delivery of these submittals may be considered to be grounds for termination for default.

(b) The Government will review the submittals and either approve them as submitted, or mark required changes on them. If changes are required, the Contractor shall deliver revised submittals for approval by the Government which incorporate all of the required changes within two weeks after receipt by the Contractor of the marked-up submittals.

(End of clause)

END OF SUPPLEMENTARY CONDITIONS

REPRESENTATIONS, CERTIFICATIONS,
AND OTHER STATEMENTS OF OFFERORS

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REPRESENTATIONS, CERTIFICATIONS,
AND OTHER STATEMENTS OF OFFERORS

FAR 52.203-2 CERTIFICATE OF INDEPENDENT PRICE DETERMINATION (APR 1985)

(a) The offeror certifies that -

(1) The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or competitor relating to –

(i) Those prices;

(ii) The intention to submit an offer; or

(iii) The methods or factors used to calculate the prices offered;

(2) The prices in this offer have not been and will not be knowingly disclosed by the offeror, directly or indirectly, to any other offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the offeror to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.

(b) Each signature on the offer is considered to be a certification by the signatory that the signatory -

(1) Is the person in the offeror's organization responsible for determining the prices being offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to paragraphs (a)(1) through (a)(3) of this provision; or

(2)(i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to paragraphs (a)(1) through (a)(3) of this provision

_____

[*insert full name of person(s) in the offeror's organization responsible for determining the prices offered in this bid or proposal, and the title of his or per position in the offeror's organization*];

(ii) As an authorized agent, does certify that the principals named in subdivision (b)(2)(i) of this provision have not participated, and will not participate, in any

action contrary to paragraphs (a)(1) through (a)(3) of this provision; and

(iii) As an agent, has not personally participated, and will not participate, in any action contrary to paragraphs (a)(1) through (a)(3) of this provision.

(c) If the offeror deletes or modifies paragraph (a)(2) of this provision, the offeror must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure.

(End of provision)

FAR 52.204-3 TAXPAYER IDENTIFICATION (OCT 1998)

(a) *Definitions*. "Common parent," as used in this provision, means that corporate entity that owns or controls an affiliated group of corporations that files its Federal income tax returns on a consolidated basis, and of which the offeror is a member.
"Taxpayer Identification Number (TIN)," as used in this provision, means the number required by the Internal Revenue Service (IRS) to be used by the offeror in reporting income tax and other returns. The TIN may be either a Social Security Number or an Employer Identification Number.

(b) All offerors must submit the information required in paragraphs (d) through (f) of this provision to comply with debt collection requirements of 31 U.S.C. 7701(c) and 3325(d), reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M, and implementing regulations issued by the IRS. If the resulting contract is subject to the payment reporting requirements described in Federal Acquisition Regulation (FAR) 4.904, the failure or refusal by the offeror to furnish the information may result in a 31 percent reduction of payments otherwise due under the contract.

(c) The TIN may be used by the Government to collect and report on any delinquent amounts arising out of the offeror's relationship with the Government (31 U.S.C. 7701(c)(3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the offeror's TIN.

(d) *Taxpayer Identification Number (TIN).*

_____ TIN: _____.

_____ TIN has been applied for.

_____ TIN is not required because:

_____ Offeror is a nonresident alien, foreign corporation, or foreign partnership that

does not have income effectively connected with the conduct of a trade or business in the United States and does not have an office or place of business or a fiscal paying agent in the United States;

_____ Offeror is an agency or instrumentality of a foreign government;

_____ Offeror is an agency or instrumentality of a Federal government;

(e) *Type of organization*.

_____ Sole proprietorship;

_____ Partnership;

_____ Corporate entity (not tax-exempt);

_____ Corporate entity (tax-exempt);

_____ Government entity (Federal, State, or local);

_____ Foreign government

_____ International organization per 26 CFR 1.6049-4;

_____ Other _____

(f) *Common Parent*.

_____ Offeror is not owned or controlled by a common parent as defined in paragraph (a) of this provision.

_____ Name and TIN of common parent:

Name _____

TIN _____

(End of provision)

AOC52.204-2 DATA UNIVERSAL NUMBERING SYSTEM (DUNS) NUMBER (JUN 2004)

(a) The offeror shall enter, in the space provided below, the DUNS number that identifies the offeror's name and address exactly as stated in the offer. The DUNS number is a nine-digit number assigned by Dun and Bradstreet Information Services.

(b) If the offeror does not have a DUNS number, it should contract Dun and Bradstreet directly to obtain one. A DUNS number will be provided immediately by telephone at no charge to the offeror. For information on obtaining a DUNS number, the offeror, if located within the United States, should call Dun and Bradstreet at 1-800-333-0505. The offeror should be prepared to provide the following information:

(1) Company name,

(2) Company address;

(3) Company telephone number;

(4) Line of business;

(5) Chief executive officer/key manager;

(6) Date the company was started;

(7) Number of people employed by the company; and

(8) Company affiliation.

(c) Offerors located outside the United States may obtain the location and phone number of the local Dun and Bradstreet Information Services office from the Internet home page at http://www.customerservice@dnb.com. If an offeror is unable to locate a local service center, it may send an e-mail to Dun and Bradstreet at globalinfo@mail.dnb.com.

(d) Enter DUNS number:_____.

(End of provision)

AOC52.204-3 REPRESENTATIONS AND CERTIFICATIONS (NOV 2004)

The offeror shall properly execute and submit with its offer the Representations and Certifications contained herein. Insert information in spaces provided as applicable.

(End of provision)

AOC52.215-8 AUTHORIZED NEGOTIATORS (JUN 2004)

The offeror represents that following persons are authorized to negotiate on its behalf with the Government in connection with this Request for Proposal:

_____ _____

Name Title

Telephone: _____ E-Mail:_____

Name **Title**

Telephone: _____ **E-Mail:_____**

Name **Title**

Telephone: _____ **E-Mail:_____**

(End of provision)

END OF REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF OFFERORS

SOLICITATION CONDITIONS

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SOLICITATION CONDITIONS

FAR 52.211-6 BRAND NAME OR EQUAL (AUG 1999)

(a) If an item in this solicitation is identified as "brand name or equal," the purchase description reflects the characteristics and level of quality that will satisfy the Government's needs. The salient physical, functional, or performance characteristics that "equal" products must meet are specified in the solicitation.

(b) To be considered for award, offers of "equal" products, including "equal" products of the brand name manufacturer, must–

(1) Meet the salient physical, functional, or performance characteristic specified in this solicitation;

(2) Clearly identify the item by–

(i) Brand name, if any; and

(ii) Make or model number;

(3) Include descriptive literature such as illustrations, drawings, or a clear reference to previously furnished descriptive data or information available to the Contracting Officer; and

(4) Clearly describe any modifications the offeror plans to make in a product to make it conform to the solicitation requirements. Mark any descriptive material to clearly show the modifications.

(c) The Contracting Officer will evaluate "equal" products on the basis of information furnished by the offeror or identified in the offer and reasonable available to the Contracting Officer. The Contracting Officer is not responsible for locating or obtaining any information not identified in the offer.

(d) Unless the offeror clearly indicates in its offer that the product being offered is an "equal" product, the offeror shall provide the brand name product referenced in the solicitation.

(End of provision)

AOC52.215-1 INSTRUCTIONS TO OFFERORS (FEB 2005)

(a) *Definitions.* As used in this provision --
"Proposal modification" is a change made to a proposal before the solicitation's closing date and

time, or made in response to an amendment, or made to correct a mistake at any time before award.
"Proposal revision" is a change to a proposal made after the solicitation closing date, at the request of or as allowed by a Contracting Officer as the result of negotiations.
"Time," if stated as a number of days, is calculated using calendar days, unless otherwise specified, and will include Saturdays, Sundays, and legal holidays, including Presidential Inauguration Day. However, if the last day falls on a Saturday, Sunday, or legal holiday, including Presidential Inauguration Day, then the period shall include the next working day.

(b) Offerors are expected to examine the entire solicitation and all instructions. Failure to do so will be at the offeror's risk. Each offeror shall furnish the information required by the solicitation. The offeror will be held responsible for full knowledge of all information contained therein.

(c) *Packaging, transmission, and tracking of proposals.* (1) Proposals, modifications, and revisions shall be enclosed, in the quantities specified elsewhere in this solicitation, in sealed envelopes. With each copy of the form entitled "SOLICITATION, OFFER, AND AWARD (Construction, Alteration, or Repair)", enclose the completed Schedule page, Bid Guarantee, if required, and Representations and Certifications. Address envelopes to: Architect of the Capitol, Procurement Division, Ford House Office Building, Attn: Christian Lindsay, Room H2-263 Bid Room, Second and "D" Streets, S.W., Washington, DC 20515. Offeror shall place the OF-17, Offer Label, on the exterior of the package on the same side as the address, or write "Bid Documents Enclosed", "H2-263 Bid Room", and write the solicitation number, time and date for receipt of offers on the exterior of the package on the same side as the address. Telegraphic or facsimile proposals and modifications will not be considered.

(2) Current security requirements established by the U.S. Capitol Police to screen mail being delivered to the U.S. Capitol Complex of buildings preclude the use of U. S. Postal Service by offerors to deliver their proposals submitted in response to this solicitation. In addition, because all packages must be screened for security purposes at a central location prior to their delivery, the Architect of the Capitol cannot accept packages containing offers hand carried directly to the Bid Room address within the Ford House Office Building, or any other location in the U.S. Capitol Complex of buildings. **See "Notice for Delivery" on the front of the solicitation**.

(3) To assist in tracking of proposals, offerors are requested to fax a copy of their signed "Solicitation, Offer and Award" form as well as a copy of the FEDEX or UPS receipt to Christian Lindsay to (866) 221-4147 at the time of the issuance of their proposal.

(4) The only acceptable method by which offerors can deliver their responses to this solicitation shall be via Federal Express (FEDEX) or United Parcel Service (UPS). Offers submitted via any other method will be rejected. **OFFERORS - DO NOT MAIL YOUR OFFER BY REGULAR U.S. MAIL.** See notice attached to this solicitation for special instructions.

(d) *Submission, modification, revision, and withdrawal of proposals*. (1) Offerors are responsible for submitting proposals and any modifications or revisions so as to reach the Government office designated in the solicitation by the time specified in the solicitation. If no time is specified in the solicitation, the time for receipt is 4:30 p.m. local time, for the designated Government office on the date that the proposal or revision is due. For the purposes of determining timeliness, the designated Government office is defined as the Pitney Bowes Management Services Capitol Heights Mail Facility at 9140 East Hampton Drive, Capitol Heights, Maryland 20743.

(2) Any proposal, modification, or revision received at the Government office designated in the solicitation after the exact time specified for receipt of offers is "late" and will not be considered unless it is received before award is made, the Contracting Officer determines that accepting the late offer would no unduly delay the acquisition, and-

(i) If it was transmitted through an electronic commerce method authorized by the solicitation, it was received at the initial point of entry to the Government infrastructure not later than 5:00 p.m. one working day prior to the date specified for receipt of proposals;

(ii) There is acceptable evidence to establish that it was received at the Government installation designated for receipt of proposals and was under the Government's control prior to the time set for receipt of proposals; or

(iii) It is the only proposal received.

(3) However, a late modification of an otherwise successful proposal that makes its terms more favorable to the Government, will be considered at any time it is received and may be accepted.

(4) Acceptable evidence to establish the date of receipt at the Government installation includes the time/date stamp of that installation on the offer wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.

(5) If an emergency or unanticipated event interrupts normal Government processes so that offers cannot be received at the Government office designated for receipt of proposals by the exact time specified in the solicitation and urgent Government requirements preclude amendment of the solicitation, the time specified for receipt of proposals will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal Government processes resume.

(6) Proposals may be withdrawn by written notice received at any time before award. Proposals may be withdrawn in person by an offeror or an authorized representative if the identity of the person requesting withdrawal is established and the person signs a receipt for the proposal before award.

(End of provision)

AOC52.215-2 INTERPRETATIONS AND AMENDMENTS (JUN 2004)

(a) Any prospective offeror desiring an explanation or interpretation of the solicitation, drawings, specifications, etc., must request it in writing no later than fourteen calendar days prior to the date established for receipt of offers. Oral explanations or instructions given before the award of a contract will not be binding.

(b) Prospective offerors shall request the Contracting Officer, in writing, via FAX or e-mail for an interpretation or correction of any ambiguity, inconsistency, or error in the contract documents which they may discover or which should have been discovered by a reasonably prudent offeror. Such requests or objections to materials or methods of construction shown or specified shall be directed to the attention of the Contracting Officer at least fifteen (15) calendar days prior to the date specified for receipt of proposals. Written requests shall be transmitted via e-mail to clindsay@aoc.gov or via facsimile to (866) 221-4147.

(c) Any interpretations or corrections, as well as any additional modifications the Contracting Officer may desire to include, will be in the form of amendments, in writing, which will be sent on the same date to all offerors if that information is necessary in submitting offers or if the lack of it would be prejudicial to other prospective offerors and shall become a part of any subsequent contract. The Contracting Officer reserves the right to answer only such questions as have, in his opinion, a definite bearing upon the proposals to be submitted.

(1) Offerors shall acknowledge the receipt of all amendments to the solicitation by:

(i) Signing and returning the amendment;

(ii) Identifying the amendment number and date in the space provided for this purpose on the form for submitting a offer;

(iii) Letter or telegram; or

(iv) Facsimile, if facsimile offers are authorized in the solicitation.

(2) The Government must receive the acknowledgment by the time and at the place specified for receipt of offers.

(d) Requests for oral interpretations or any other interpretations not made by amendments will not be accepted, and any information that may possibly be gained by offerors in that manner is gratuitous and not binding.

(e) If this solicitation is amended, all terms and conditions that are not amended remain unchanged.

(End of provision)

AOC52.215-3 RESTRICTION ON DISCLOSURE AND USE OF DATA (JUN 2004)

Offerors that include in their proposals data that they do not want disclosed to the public for any purpose, or used by the Government except for evaluation purposes, shall–

(a) Mark the title page with the following legend:
"This proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed--in whole or in part--for any purpose other than to evaluate this proposal. If, however, a contract is awarded to this offeror as a result of--or in connection with--the submission of this data, the Government shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in sheets (insert numbers or other identification of sheets)"; and

(b) Mark each sheet of data it wishes to restrict with the following legend:
"Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this proposal."

(End of provision)

AOC52.215-4 CONTRACT AWARD (JUN 2004)

(a) The Government will evaluate offers in response to this solicitation without discussions and will award a contract to the responsible offeror whose offer, conforming to the solicitation, will be most advantageous to the Government considering only price and the price-related factors specified elsewhere in the solicitation. Therefore, the offeror's initial proposal should contain the offeror's best terms from a price standpoint. The Government reserves the right to conduct discussions.

(b) The Government may–

(1) Reject any or all offers;

(2) Accept other than the lowest offer; and

(3) Waive informalities or minor irregularities in offers received.

(c) The Government may accept any item or combination of items, unless doing so is precluded by a restrictive limitation in the solicitation or the offer.

(d) A written award or acceptance of offer mailed or otherwise furnished to the successful offeror within the time for acceptance specified in the offer shall result in a binding contract without further action by either party. Before the offer's specified expiration time, the Government may accept an offer (or part of an offer as provided in Paragraph (c) of this clause), whether or not there are negotiations after its receipt, unless a written notice of withdrawal is received before award. Negotiations conducted after receipt of an offer do not constitute a rejection or counteroffer by the Government.

(e) Neither financial data submitted with an offer, nor representations concerning facilities or financing, will form a part of the resulting contract. However, if the resulting contract contains a clause providing for price reduction for defective cost or pricing data, the contract price will be subject to reduction if cost or pricing data furnished is incomplete, inaccurate, or not current.

(f) The Government may determine that an offer is unacceptable if the prices proposed are materially unbalanced between line items or sub line items. Unbalanced pricing exists when, despite an acceptable total evaluated price, the price of one or more contract line items is significantly overstated or understated as indicated by the application of cost or price analysis techniques. A proposal may be rejected if the Contracting Officer determines that the lack of balance poses an unacceptable risk to the Government.

(End of provision)

AOC52.215-7 PREPARATION OF PROPOSALS - CONSTRUCTION (JUN 2004)

(a) Offers shall be submitted, in the quantities as stated elsewhere in this solicitation, on the accompanying printed form entitled, “SOLICITATION, OFFER, AND AWARD (Construction, Alteration, or Repair)” and copies thereof, with blank spaces suitably filled in. Erasures or other changes on any or all submissions shall be initialed by the signer of the offer.

(b) Copies of the offer shall be identical and each copy shall give the full business address of the offeror, and be signed by him (see Block 20B of the form entitled, “SOLICITATION, OFFER, AND AWARD (Construction, Alteration, or Repair”) with his usual signature. Offer by partnerships shall furnish the full names of all partners, and shall be signed with the partnership name by one of the members of the partnership or by an authorized representative, followed by the signature and designation of the person signing. Offers by corporations shall be signed with the legal name of the corporation, followed by the name of the State of incorporation and by the signature and designation of the president, secretary, or other person authorized to bind it in the matter. The name of each person signing shall be typed or printed below the signature. An offer by a person who affixes to his signature the word “president”, “Secretary”, “agent”, or other designation, without disclosing his principal, may be held to be the offer of the individual signing. When requested by the Government, satisfactory evidence of the authority of the offer signing in behalf of the corporation shall be furnished.

(End of provision)

AOC52.215-9 FAILURE TO SUBMIT OFFER (JUN 2004)

Recipients of this solicitation not responding with a proposal should not return this solicitation, unless it specifies otherwise. Instead, they should advise the issuing office by letter, postcard, or established electronic commerce methods, whether they want to receive future solicitations for similar requirements. If a recipient does not submit a proposal and does not notify the issuing office that future solicitations are desired, the recipient's name **will** be removed from the applicable mailing list.

(End of provision)

FAR 52.216-1 TYPE OF CONTRACT (APR 1984)

The Government contemplates award of a firm-fixed-price contract resulting from this solicitation.

(End of provision)

AOC52.217-1 EVALUATION OF OPTIONS (NOV 2003)

Except when it is determined not to be in the Government's best interest, the Government will evaluate offers for award purposes by adding the total price for the selected options which include Line Item 0002; to the total price which includes the lump sum price, the line item pricing and the unit pricing. The estimated quantities given under the unit prices are for informational purposes only to provide the Government a price for evaluation purposes. Evaluation of options will not obligate the Government to exercise the options.

(End of provision)

FAR 52.225-10 NOTICE OF BUY AMERICAN ACT REQUIREMENT-- CONSTRUCTION MATERIALS (MAY 2002)

(a) *Definitions*. "Construction material", "domestic construction material", and "foreign construction material", as used in this provision, are defined in the clause of this solicitation entitled "Buy American Act - Construction Materials (Federal Acquisition Regulation (FAR) clause 52.225-9).

(b) *Requests for determination of inapplicability*. An offeror requesting a determination of inapplicability of the Buy American Act should submit the request to the Contracting officer in time to allow a determination before submission of offers. The offeror shall include the information and applicable supporting data required by paragraphs (c) and (d) of the clause at FAR 52.225-9 in the request. If an offeror has not requested a determination regarding the inapplicability of the Buy American Act before submitting its offer or has not received a response

to a previous request, the offeror shall include the information and supporting data on the offeror.

(c) *Evaluation of offers*. (1) The Government will evaluate an offer requesting exception to the requirements of the Buy American Act based on claimed unreasonable cost of domestic construction material, by adding to the offered price the appropriate percentage of the cost of such foreign construction material, as specified in paragraph (b)(3)(i) of the clause at FAR 52.225-9.

(2) If the evaluation results in a tie between an offeror that requested the substitution of foreign construction material based on unreasonable cost and an offeror that did not request an exception, the Contracting Officer will award to the offeror that did not request an exception based on unreasonable costs.

(d) *Alternate offers*. (1) When an offer includes foreign construction material not listed by the Government in this solicitation in paragraph (b)(2) of the clause at FAR 52.225-9, the offeror may also submit an alternate offer based on use of equivalent domestic construction material.

(2) If an alternate offer is submitted, the offeror shall submit a separate Standard Form 1442 for the alternate offer and a separate price comparison table prepared in accordance with paragraphs (c) and (d) of the clause at 52.225-9 for the offer that is based on the use of any foreign construction material for which the Government has not yet determined an exception applies.

(3) If the Government determines that a particular exception requested in accordance with paragraph (c) of the clause at 52.225-9 does not apply, the Government will evaluate only those offers based on use of the equivalent domestic construction material, and the offeror shall be required to furnish such domestic construction material. An offer based on use of the foreign construction material for which an exception was requested--

(i) Will be rejected as nonresponsive if this acquisition is conducted by sealed bidding; or

(ii) May be accepted if revised during negotiations.

(End of provision)

AOC52.228-1 OFFER GUARANTEE (JUN 2004)

(a) Failure to furnish an Offer Guarantee in the required form and amount, with and as a part of the proposal, will be cause for rejection of the proposal.

(b) The offeror shall furnish an Offer Guarantee of not less than 20% of the proposed price in the form of a firm commitment consisting of a Bid Bond, Certified Check, Cashier's Check, Irrevocable Letter of Credit, or Postal Money Order made payable to the Architect of the Capitol, or, under Treasury Department Regulations, certain bonds or notes of the United States. The

Contracting Officer will return Offer Guarantees, other than Bid Bonds, (1) to unsuccessful offerors as soon as practicable after evaluation of the proposals; and (2) to the successful offeror upon execution of contractual documents and bonds (including any necessary coinsurance or reinsurance agreements), as required by the offer as accepted.

(End of provision)

AOC52.236-13 VISIT TO THE SITE OF THE WORK - CONSTRUCTION (JUN 2004)

(a) It is strongly recommended that all prospective offerors visit the site where the work is to be performed, compare the work requirements with existing conditions, verify dimensions, if necessary, and fully inform themselves regarding the nature and scope of the proposed work and the conditions under which it will be conducted. Offerors shall also inform themselves regarding other work, if any, being done or to be done by or for the United States government, the District of Columbia government and utility companies, by contract or otherwise, where such work may affect or be affected by the operations under the contract. Failure to take these precautions will in no way relieve the successful offeror from his obligation to furnish all materials, services, labor, and any other requirements necessary to complete the work satisfactorily under the conditions established by the contract documents and without additional expense to the Government.

(b) **A pre-proposal meeting will be conducted at the U.S. Supreme Court Building Construction Trailer, located at 1st Street NE, Washington, D.C. for all prospective offerors on Wednesday, May 5, 2006 at 10:00 AM, local time. CAMERAS AND/OR CAMERA PHONES ARE NOT PERMITTED .**

(c) The Architect will conduct one field inspection of the work immediately following the pre-proposal meeting. Those intending to participate shall meet at the address above. **If you plan to attend please provide, via fax or email, the full name of the persons(s) attending, social security number, date of birth, and mailing address (No PO Box addresses will be accepted), by COB APRIL 26, 2006 . Information concerning the meeting may be obtained by telephoning Christian Lindsay at (202) 479-5976.**

(d) Offerors are encouraged to submit all questions in writing at least five (5) working days prior to the conference. Questions will be considered at any time prior to or during the conference; however, offerors will be asked to confirm verbal questions in writing. Subsequent to the conference, an amendment to the solicitation containing an abstract of the questions and answers, and a list of attendees, will be disseminated.

(e) Offerors are cautioned that, notwithstanding any remarks or clarifications given at any site visit, the pre-proposal conference or field inspection, all terms and conditions of the solicitation remain unchanged unless they are changed by amendment to the solicitation. If the answers to conference questions, or any solicitation amendment, create ambiguities, it is the responsibility of the offeror to seek clarification prior to submitting a offer.

(End of provision)

END OF SOLICITATION CONDITIONS

VOLUME I I

TECHNICAL

PART 1 - GENERAL

1.1 DRAWING TITLES:

(a) The drawings entitled "U.S. CAPITOL COMPLEX, ADDITIONAL ROOF FALL PROTECTION, U.S. SUPREME COURT" prepared by Alan M. Hantman, FAIA, Architect of the Capitol, dated AUGUST 17, 2005, as listed below from a part of the Contract Documents.
(b) The Contractor shall not scale the drawings but shall verify drawing dimensions and take additionally required dimensions at the site.
(c) The Contractor will be furnished, free of charge, not more than six (6) sets of the contract drawings.

PART 2 - DRAWINGS LIST

2.1 GENERAL

Number	Title
G001	COVER SHEET
A101	ROOF PLAN
A201	ENLARGED PLAN & ELEVATIONS
A501	ROOF DETAILS
A502	ROOF DETAILS & SECTIONS
E101	ELECTRICAL PLAN

SECTION 01000 - GENERAL REQUIREMENTS

PART 1 - GENERAL

1.1 DESCRIPTION OF REQUIREMENTS:

A. General Requirements: The provisions or requirements of Division 1 apply to entire work of Contract and, where so indicated, to other elements which are included in project, and include, but are not limited to the following:
   1. Summary of the Work.
   2. Project Coordination.
   3. Definitions and Standards.
   4. Schedules and Reports.
   5. Submittals.
   6. Temporary Facilities and Controls.
   7. Products.
   8. Project Closeout.

1.2 SUMMARY OF THE WORK:

A. Project/Work Identification:
   1. General: Project name is, ADDITIONAL ROOF FALL PROTECTION, US SUPREME COURT, Washington, D.C., as shown on Contract Documents prepared by the Architect of the Capitol (AOC). Drawings and specifications are dated August 16, 2005.
   2. Summary by Reference: Work of the Contract can be summarized by references to the SCHEDULE, GENERAL CONDITIONS, SUPPLEMENTARY CONDITIONS, Official Procedure for Making Changes in Contracts, Specification Sections, Drawings, Amendments and Modifications to the contract documents issued subsequent to the initial printing of this Project Manual and including, but not necessarily limited to, printed material referenced by any of these.
   3. Abbreviated Written Summary: Briefly and without force and effect upon the contract documents, the work of the Contract can be summarized as follows:
      a. Provide OSHA compliant Roof Fall Protection
      b. Provide OSHA compliant fixed electric man/material lifts(2).
      c. Miscellaneous work as required for a complete installation
   4. Use of the Contract Documents: The Contract Documents are comprised of the Drawings (produced by several disciplines), the Specifications, the Amendments, the Contract, approved Changes and other directives. These documents are not to be used separately for bid or construction as they represent the entirety of the project. The Contractor is responsible for insuring that the documents are used together.
   5. Phasing Plan: No Phasing Plan is included in the Contract Documents. The Contractor is expected to complete all work sequentially to provide the minimum disruption of parking and normal building operations in the area. The Contractor will provide his own plan for approval by the Architect showing proposed sequencing of the work and coordination with Government parking requirements.

B. Contractor Use of Premises:
   1. General: The Contractor shall limit his use of the premises to the work indicated, so as to allow for the Government's occupancy and use by the public.

2. Contractor Use of the Existing Building: During the construction period the site and the building will be occupied by Members of Congress, other Government employees and the general public. Maintain the existing building in a safe and weather-tight condition throughout the construction period. Repair damage caused by construction operations. Take all precautions necessary to protect the building and its occupants during the construction period. Cooperate fully with the Architect or his representative during construction operations to minimize conflicts and to facilitate Government usage.
   a. Clear Passage: Keep public areas such as hallways, stairs, elevator lobbies and toilet rooms free from accumulation of waste material, rubbish or construction debris.
   b. Smoking or open fires will not be permitted within the building enclosure or on the premises.
   c. Temporary Elevator Use: Neither existing elevators nor new elevators will be available for Contractor's use during the construction period.
   d. Standard Working Hours: The standard working hours of operation for the U.S. Supreme Court Building are as follows. Work may be performed during these hours; any off hours work shall be coordinated with the Architect and the Building Superintendent:
      1) Monday through Friday: 6:00 am to 5:00 pm
      2) Saturday, Sunday: 6:00 am to 5:00 pm
      3) Work requiring noise making is only permitted between the hours of 6:00am to 8:30 am unless otherwise permitted by the contracting officer's representative.
3. Limitations on Use of the Site: Limitations on site usage as well as specific requirements that impact site utilization are indicated on the Drawings and by other Contract Documents. Portions of the site beyond areas on which work is indicated are not to be disturbed. In addition to these limitations and requirements, administer allocation of available space among entities needing both access and space so as to produce the best overall efficiency in performance of the total work of the project. Schedule deliveries so as to minimize space and time requirements for storage of materials and equipment on site.
   a. Unless designated for sole Contractor use, keep existing driveways and entrances serving the premises clear and available to the Government and its employees at all times. Do not permit trucks of any kind to use existing sidewalks without prior authorization of the Architect.
   b. Maintain driveways between and around combustible material storage piles at least 15' wide and free of accumulation of rubbish, equipment and materials. Maintain access for fire fighting equipment.
   c. Do not unreasonably encumber the site with materials or equipment. Confine stockpiling of materials and location of storage sheds to the areas indicated. If additional storage is necessary, obtain and pay for such storage off-site.
   d. Provide 24hr/7day access to the building by emergency vehicles and firefighting equipment.
4. Construction Parking Control: Parking space for personal vehicles is not available on the site. Obtain approval of Architect for parking of construction motor vehicles or other equipment on the site.

D. Government Occupancy: The Government reserves the right to place and install equipment as necessary in completed areas of the building and to occupy such areas prior to final acceptance, provided that such occupancy does not substantially interfere with completion of the work. Such placing of equipment and partial occupancy shall not constitute acceptance of the work or any part of the work.

E. Protection of Government Property: The Contractor is expected to take all reasonable precautions to protect U.S. Government Property. In the event of damage to or theft of Government Property, the Contractor will be held fully responsible for his own personnel, his subcontractor=s personnel and their actions.

F. Blasting: The use of any kind or type of explosive in the performance of the work is prohibited, except the use of construction tools actuated by or employing powder actuated charges which shall be permitted, provided that the tool is of the kind and design ordinarily used for such construction and that the Architect has authorized its use after determining that its use will not endanger human life or safety.

G. Mechanical/Electrical Requirements of General Work: Except as otherwise indicated, comply with applicable provisions of The National Electrical Code (NEC) and standards by National Electrical Manufacturer's Association (NEMA) for electrical components of general work. Where applicable, provide products listed and labeled by nationally recognized independent testing and labeling organizations.

1.3 PROJECT COORDINATION:

A. Coordination and Meetings: Prepare a written memorandum on required coordination activities. Include such items as required notices, reports and attendance at meetings. Distribute this memorandum to each entity performing work at the project site. Prepare similar memorandum for separate contractors where interfacing of their work is required.
   1. Continuously coordinate the work of subcontractors to ensure proper processing and progress of the work. Require each subcontractor to examine work of other trades and all sections of specifications to assure satisfactory installation of, and connection between, his work and work of other trades.
      a. Provide other parties, to the extent their work is affected by this work, all information necessary for the proper execution of their work. Arrange and conduct work so that other parties may complete their work at the site according to schedule. All work under this contract shall be carefully coordinated with work under other such contracts.
   2. The Contractor shall maintain a complete set of Contract Documents on the site during the execution of this contract. All Drawings and Specifications shall be posted with the latest information and Changes.

B. Surveys and Records/Reports: Working from lines and levels established by the property survey, establish and maintain bench marks and other dependable markers. Establish bench marks and markers to set lines and levels for work at each story of construction and elsewhere as needed to properly locate each element of the project. Calculate and measure required dimensions as shown within recognized tolerances. Drawings shall not be scaled to determine dimensions. Advise entities performing work of marked lines and levels provided for their use. Advise Architect promptly upon detection of deviations that exceed indicated tolerances.

C. General Installation Provisions:
   1. Pre Installation Meetings: Hold a pre installation meeting at the project site well before installation of each unit of work which requires coordination with other work. Installer and representatives of the manufacturers and fabricators who are involved in or affected by that unit of work, and with its coordination or integration with other work that has

preceded or will follow, shall attend this meeting. Advise Architect of scheduled meeting dates.

2. Installer's Inspection of Conditions: Require the Installer of each major unit of work to inspect the substrate to receive work and conditions under which the work is to be performed. The Installer shall report all unsatisfactory conditions in writing to the Contractor. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to the Installer.
3. Manufacturer's Instructions: Where installations include manufactured products, comply with the manufacturer's applicable instructions and recommendations for installation, to the extent that these instructions and recommendations are more explicit or more stringent than requirements indicated in the Contract Documents.
4. Mounting Heights: Where mounting heights are not indicated, mount individual units of work at industry recognized standard mounting heights for the particular application indicated. Refer questionable mounting height choices to the Architect for final decision.

D. Cleaning and Protection: During handling and installation of work at the project site, clean and protect work in progress and adjoining work on the basis of continuous maintenance. Apply protective covering on installed work where it is required to ensure freedom from damage or deterioration at time of completion.
   1. Clean and perform maintenance on installed work as frequently as necessary through remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
   2. Limiting Exposures of Work: To the extent possible through reasonable control and protection methods, supervise performance of the work in such a manner and by such means which will ensure that none of the work, whether completed or in progress, will be subjected to harmful, dangerous, damaging or otherwise deleterious exposure during the construction period.
      a. Protect against possible damage all sills, jambs and soffits of permanent openings used as passageways or through which materials are handled. Protect exposed corners, spandrels, projecting features and similar permanent work subject to damage. Cover and protect all prefinished work from damage by mortar, plaster, gypsum drywall compounds, paint, and other construction materials and operations. Use wheelbarrows equipped with rubber tires over permanently exposed floors and paving. Provide special protection for works of art, as prescribed in the Contract Documents.
   3. Load all trucks leaving the site with earthen materials or loose debris in a manner that will prevent dropping of materials on streets. Fasten suitable tarpaulins over the load before they enter surrounding paved streets. Trucks bringing earthen materials over paved streets to the site shall be similarly covered.
   4. Clean sidewalks and streets adjacent to site daily or more often as necessary, of debris spillage or mud/dirt tracked from loading and trucking involved in construction operations. Maintain suitable truck wheel washing installation and crew to prevent any mud from being carried onto adjacent paved streets. Conform to local regulations regarding load limits.

E. Cutting and Patching: Where the Contractor must cut, patch, alter, add to, repair or refinish existing construction and finishes which are not to be removed, he shall leave such construction and finishes complete and in satisfactory condition. Cutting, patching, and the like shall be neatly and carefully performed, and new materials and methods shall match existing

corresponding work unless otherwise indicated. Exposed patches and repairs shall be as inconspicuous as possible.

1. Construction, finishes, equipment and other items which are damaged or defaced by reason of work performed under this contract shall be restored to the satisfaction of the Architect.

F. Conservation and Salvage: It is a requirement for supervision and administration of the work that construction operations be carried out with the maximum possible consideration given to the conservation of energy, water and materials. In addition, maximum consideration shall be given to salvaging materials and equipment involved in performance of the work but not incorporated therein. Refer to other sections for required disposition of salvage materials which are the Government's property.

1. Architect Notification: To allow time for the Architect to observe the construction, provide a minimum of 48 hours notice of excavation work, completion of steel reinforcing, pouring of concrete, paving operations, utility work, trenching, tree removal or replacement, commencements of next phase of work, and other tasks to be identified by the Architect.

1.4 DEFINITIONS AND STANDARDS:

A. General: Comply with governing regulations and the codes and standards imposed upon the work. These requirements include the obtaining of permits, licenses, inspections, releases and similar documentation, as well as payments, statements and similar requirements associated with regulations, codes and standards.

B. Definitions: A substantial amount of specification language consists of definitions for terms found in other contract documents, including the drawings. (Drawings must be recognized as diagrammatic in nature and not completely descriptive of the requirements indicated thereon). Certain terms used in contract documents are defined in this article. Definitions and explanations contained in this section are not necessarily either complete or exclusive, but are general for the work to the extent that they are not stated more explicitly in another element of the contract documents.

1. Installer: The term "installer" is defined as the entity (person or firm) engaged by the Contractor, its subcontractor or sub subcontractor for performance of a particular unit of work at the project site, including installation, erection, application and similar required operations. It is a general requirement that such entities (installers) be expert in the operations they are engaged to perform.
2. Testing Laboratory: The term "testing laboratory" is defined as an independent entity engaged to perform specific inspections or tests of the work, either at the project site or elsewhere, and to report, and (if required) interpret results of those inspections or tests.
3. Indicated: The term "indicated" is a cross reference to graphic representations, notes or schedules on drawings, to other paragraphs or schedules in the specifications, and to similar means of recording requirements in contract documents. Where terms such as "shown," "noted," "scheduled," and "specified" are used in lieu of "indicated," it is for the purpose of helping the reader locate cross reference, and no limitation is intended except as specifically noted.
4. Furnish: Except as otherwise defined in greater detail, the term "furnish" is used to mean supply and deliver to the project site, ready for unloading, unpacking, assembly, installation, etc., as applicable in each instance.
5. Install: Except as otherwise defined in greater detail, the term "install" is used to describe operations at the project site including unloading, unpacking, assembly, erection, placing,

anchoring, applying, working to dimension, finishing, curing, protecting, cleaning and similar operations, as applicable in each instance.

6. Provide: Except as otherwise defined in greater detail, the term "provide" means furnish and install, complete and ready for intended use, as applicable in each instance.
7. Exposed: The term "exposed" is defined as an item or surface, exterior or interior, which can be seen by a person outside the building or a person inside a usable space within the building during normal activity.
    a. Mechanical and electrical rooms, air handling rooms, storage rooms and penthouses shall be considered to have exposed surfaces, as shall the mechanical and electrical construction within them.
    b. The interiors of closets and alcoves shall be considered exposed surfaces, and shall be finished to match the finish of the adjoining room or space, unless another finish is otherwise indicated.
    c. The interiors of cabinets shall be considered exposed, but a finish different from that of the exterior may be permitted or required by other sections.
8. Concealed: The term "concealed" is defined as an item or space not normally seen, occupied or used by building occupants or staff, such as shafts, hoistways, tunnels, ceiling plenums, attics, and crawls spaces.
9. Finished Space: The term "finished space" is defined as space normally used by the public, building occupants or staff for primary functions of the building, but does not include mechanical, electrical and elevator equipment rooms, hoistways, tunnels or mechanical penthouses, unless otherwise indicated.
10. Specialist: The term "specialist" is defined as an individual or firm of established reputation (or, if newly organized, whose personnel have previously established a reputation in the same field), which is regularly engaged in, and which maintains a regular force of workers skilled in either (as applicable) manufacturing or fabricating items required by the contract, installing items required by the contract, or otherwise performing work required by the contract. Where the contract specification requires installation by a specialist, that term shall also be deemed to mean either the manufacturer of the item, an individual or firm licensed by the manufacturer, or an individual or firm who will perform the work under the manufacturer's direct supervision.

C. Format and Specification Content Explanations: Bolding and underscoring: Are used strictly to assist reader of specification text in scanning text for key words (for quick recall). No emphasis on or relative importance is intended where bolding and underscoring are used. Imperative language is used generally in specifications. Except as otherwise indicated, requirements expressed imperatively are to be performed by the Contractor. For clarity of reading at certain locations, contrasting subjective language is used to describe responsibilities which must be fulfilled indirectly by Contractor, or when so noted, by others.

1. Abbreviations: The language of specifications and other contract documents is of the abbreviated type in certain instances, and implies words and meanings which will be appropriately interpreted. Actual word abbreviations of a self explanatory nature have been included in texts. Specific abbreviations have been established, principally for lengthy technical terminology and primarily in conjunction with coordination of specification requirements with titles of general standards which are frequently abbreviated. Singular words will be interpreted as plural and plural words will be interpreted as singular where applicable and where full context of the contract documents so indicates.
2. Minimum Quality/Quantity: In every instance, the quality level or quantity shown or specified is intended as minimum for the work to be performed or provided. Except as

otherwise specifically indicated, actual work may either comply exactly with that minimum (within specified tolerances), or may surpass the quality of that minimum within reasonable limits. In complying with requirements, indicated numeric values are either minimum or maximums as noted or as appropriate for context of requirements. Refer instances of uncertainty to the Architect for decision before proceeding.

D. Overlapping and Conflicting Requirements: Where there appears to be overlapping or conflicting requirements in the drawings and specifications, refer all such questions in writing to the Architect for interpretation. Do not proceed with that portion of the work that is under question until the Architect has replied in writing. Delays necessitated by requests for interpretation shall not form the basis for a Change to the contract. The Architect=s interpretation and decision shall be final. Procedures for resolving disagreements with the decision of the Architect are outlined in the General Conditions of the Contract. The order of precedence is established as follows:

1. Order of Precedence: Any inconsistency in this solicitation or Contract shall be resolved by giving precedence in the following order:
   a. The Schedule (excluding the specifications).
   b. Representations and other instructions.
   c. Contract clauses.
   d. The Specifications.
   e. The Drawings. Large scale drawings take precedence over small scale drawings. Do not scale drawings.
2. Industry Standards: Where compliance with two (2) or more industry standards or sets of requirements is specified, and overlapping of those different standards or requirements establishes different or conflicting minimums or levels of quality, the most stringent requirement is intended and will be enforced, unless specifically detailed language written into contract documents clearly indicates that a less stringent requirement is to be fulfilled. Refer apparently-equal-but-different requirements, and uncertainties as to which level of quality is more stringent, to the Architect for a decision before proceeding.
3. Contractor's Options: Except for overlapping or conflicting requirements, where more than one set of requirements are specified for a particular unit of work, Options are intended to be the Contractor's regardless of whether or not it is specifically indicated as such.

E. Drawing Symbols: Except as otherwise indicated, graphic symbols used on drawings are those symbols recognized in the construction industry for purposes indicated. Where not otherwise noted, symbols are defined by "Architectural Graphic Standards", published by John Wiley & Sons, Inc., Tenth edition.

1. Mechanical/Electrical Drawings: Graphic symbols used on mechanical and electrical drawings are generally aligned with symbols recommended by ASHRAE. Where appropriate, these symbols are supplemented by more specific symbols as recommended by other recognized technical associations including ASME, ASPE, IEEE and similar organizations. Refer instances of uncertainty to the Architect for clarification before proceeding.

F. Industry Standards: Except to the extent that more explicit or more stringent requirements are written directly into contract documents, applicable standards of the construction industry have the same force and effect (and are made a part of the contract documents by reference) as if copied directly into the contract documents, or as if published copies were bound herein, subject to the order of precedence previously stated.

1. Publication Dates: Except as otherwise indicated, where compliance with an industry standard is required, conform to the standard in effect on the date of the Invitation for Bids, or, if referred to in any Amendments, at the date of such Amendments.
2. Abbreviations and Names: The following acronyms or abbreviations as referenced in contract documents are defined to mean the associated names. Both names and addresses are subject to change, and are believed to be, but are not assured to be, accurate and up to date as of the date of contract documents:

AIA	American Institute of Architects (The) www.aia.org	(800) 242 3837 (202) 626 7300
AISC	American Institute of Steel Construction www.aisc.org	(800) 644 2400 (312) 670 2400
ANSI	American National Standards Institute www.ansi.org	(202) 293 8020
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers www.ashrae.org	(800) 527 4723 (404) 636 8400
ASTM	ASTM International (American Society for Testing and Materials International) www.astm.org	(610) 832 9585
AWI	Architectural Woodwork Institute www.awinet.org	(800) 449 8811 (703) 733 0600
AWS	American Welding Society www.aws.org	(800) 443 9353 (305) 443 9353
CDA	Copper Development Association Inc. www.copper.org	(800) 232 3282 (212) 251 7200
FMG	FM Global (Formerly: FM Factory Mutual System) www.fmglobal.com	(401) 275 3000
IEEE	Institute of Electrical and Electronics Engineers www.ieee.org	(212) 419 7900
NAAMM	National Association of Architectural Metal Mfrs www.naamm.org	(312) 332 0405
NECA	National Electrical Contractors Association www.necanet.org	(301) 657 3110
NEMA	National Electrical Manufacturers Association www.nema.org	(703) 841 3200

NFPA	National Fire Protection Association www.nfpa.org	(800) 344 3555 (617) 770 3000
NRCA	National Roofing Contractors Association www.nrca.net	(800) 323 9545 (847) 299 9070
SMACNA	Sheet Metal and Air Conditioning Contractors' National Association www.smacna.org	(703) 803 2980
SSPC	SSPC: The Society for Protective Coatings www.sspc.org	(877) 281 7772 (412) 281 2331
UL	Underwriters Laboratories Inc. www.ul.com	(800) 704 4050 (847) 272 8800
WWPA	Western Wood Products Association www.wwpa.org	(503) 224 3930

G. Federal Government Agencies: Names and titles of federal government Standard or Specification producing agencies are often abbreviated. The following acronyms or abbreviations referenced in the Contract Documents indicate names of Standard or Specification producing agencies of the federal government. Names and addresses are subject to change but are believed to be, but are not assured to be, accurate and up to date as of the date of the Contract Documents.

FR	Code of Federal Regulations Available from Government Printing Office www.access.gpo.gov/nara/cfr	 (888) 293 6498 (202) 512 1530
EPA	Environmental Protection Agency www.epa.gov	(800) 438-2474
FS	Federal Specification Available from the following:	
	Defense Automated Printing Service www.astimage.daps.dla.mil/online	(215) 697 6257
	General Services Administration www.fss.gsa.gov/pub/fed specs.cfm	(202) 619 8925
	National Institute of Building Sciences www.nibs.org	(202) 289 7800
OSHA	Occupational Safety and Health Administration www.osha.gov	(800) 321-OSHA (800) 321- 6742

H. District of Columbia Government Agencies: Names and titles of local government Standard or Specification producing agencies are often abbreviated. The following acronyms or

abbreviations referenced in the Contract Documents indicate names of Standard or Specification producing agencies of the DC government. Names and addresses are subject to change but are believed to be, but are not assured to be, accurate and up to date as of the date of the Contract Documents.

DC-EHA	Environmental Health Administration Department of Health Government of the District of Columbia 51 N Street. N.E, Room 5030 B Washington, DC 20002 dchealth.dc.gov	(202) 535-2500
DDOT	District Department of Transportation 2000 14th Street, NW, 6th Floor Washington, DC 20009 ddot.dc.gov	(202) 673 6813
WASA	District of Columbia Water and Sewer Authority 5000 Overlook Avenue, SW Washington, DC 20032 www.dcasa.com	(202) 787 2427

1.5 SCHEDULES & REPORTS:

A. Coordination: Coordinate both the listing and timing of reports and other activities required by provisions of this and other sections, so as to provide consistency and logical coordination between the reports. Maintain coordination and correlation between separate reports by updating at monthly or shorter time intervals. Make appropriate distribution of each report and updated report to all parties involved in the work including the Architect.

B. Material Schedule: Prior to commencing work, submit for approval the names of manufacturers and the trade names or numbers of all materials proposed for use on the project. Do not use any material until approved by the Architect. Upon request, furnish samples of materials, without cost to the Government, for examination and testing.
   1. Submit 3 copies of the product listing schedule prior to commencement of the Work. Provide a written explanation for omissions of data, and for known variations from contract requirements.

C. Schedule of Values: Within thirty (30) calendar days of the date of contract award, a Schedule of Values shall be submitted. This schedule is defined as a work item by work item breakdown of cost of each definitive work activity including Contractor's markup. The Schedule of Values shall directly correlate with the Phases of Work indicated on the approved Progress Schedule specified below.
   1. The Grand Total of all of the Schedules shall equal Contractor's original bid.
   2. The proper updating of both the Schedule of Values and the Record Drawings shall be considered precedent to approval of Partial Payments.

D. Shop Drawing Submittal Schedule: Within thirty (30) calendar days of the date of contract award, a Shop Drawing Submittal Schedule shall be submitted. The schedule shall indicate at a minimum, all shop drawing submittals to be made, their contents, each specification section

the submittal is drawn from, the date on which it will be submitted, the expected return dates, and the subcontractor responsible for creating the submittal. The submittal will be reviewed by the Architect as the first shop drawing submittal and comments made must be acknowledged and employed in the resubmission prior to the submittal of any other shop drawing. Do not “Load” the schedule.

E. Progress Schedule: Within fourteen (14) calendar days of the date of contract award, the Contractor shall prepare and submit for approval a schedule showing the order in which he proposes to perform the Work, the dates on which he will start each phase of work and the contemplated dates of completion for each phase of site. Not less than six (6) copies of this schedule shall be submitted to the Architect.

1. Cost Correlation: Immediately below the date line at the heading of the bar-chart, provide a two item cost correlation line, indicating both "precalculated" and "actual" costs. This cost correlation line shall show dollar-volume of work performed as of the same dates used for preparation of partial payment requests. Refer to GENERAL CONDITIONS for cost reporting and payment procedures. In so far as it is practical to do so, use the same units of work in the progress schedule as indicated in the "schedule of values" required by the GENERAL CONDITIONS and further specified above.
2. Schedule Updating: Following its initial approval, the project schedule shall be updated monthly for the purpose of recording and monitoring progress of the Work and establishing the values of progress payments. If the Work falls behind schedule, revise schedule and describe action to be taken to insure that work will be completed within the Contract time. Any adjustment to the Contract Time shall be made in accordance with the GENERAL CONDITIONS. For each schedule update, prepare a narrative report which shall include a description of all activities completed during the preceding month, description of progress made and planned activities listed as started but not completed on the updated Progress Schedule, and a written description and justification of any proposed revision to the logic sequence.
3. Distribution: Following the initial submittal to and response by the Architect, print and distribute progress schedules to the Architect (3 copies), separate contractors, the principal subcontractors and suppliers or fabricators, and others with a need-to-know schedule-compliance requirement. When revisions are made, distribute updated issues to the appropriate entities.

F. Progress Meetings and Documentation: In addition to specific coordination and pre installation meetings for each element of work, and other regular project meetings held for other purposes, hold a general progress meeting each month with time coordinated with preparation of the partial payment request. Require each entity then involved in planning, coordination or performance of work to be properly represented at each meeting. Discuss status of each element of current work in relation to Progress Schedule. Determine how behind schedule work will be expedited, and secure commitments from entities involved in doing so to ensure that work will be completed within Contract Time.

1. Initial Progress Meeting: Schedule initial progress meeting, recognized as "Pre Construction Meeting", for a date not more than 15 days after date of commencement of the Work. Use it as an organizational meeting, and review responsibilities and personnel assignments.
2. Daily Reports: Prepare a daily report, recording information concerning events at the site; and submit duplicate copies to Architect on at least weekly intervals.

G. Permits, Licenses, and Certificates: For the Government's records, submit copies of utility permits, licenses, certifications, utility inspection reports, releases, notices, receipts for fee payments, judgments, and similar documents, correspondence and records established in conjunction with compliance with standards and regulations bearing upon performance of the Work.

1.6 SUBMITTALS:

A. General: Shop drawings, product data, samples and other work-related submittals are required to amplify, expand and coordinate the information contained in the Contract Documents. The Contractor is responsible for all dimensions, for the design of adequate or proper components, connections and other items, for the inclusion in the work of all elements and incidental details, and for the satisfactory fabrication, construction, operation and coordination of the work.
   1. Approval of any submission shall not be construed as a complete or precise check of the item submitted but will only indicate that the general methods of design, detailing, construction or other elements under consideration appear to be satisfactory, without specific determinations or particulars.
   2. Changes to the Contract will not be made by notations on submittals. In the event submittals returned by the Architect with notations, which in the opinion of the Contractor, constitute additional work for which he is entitled to an adjustment in the contract sum or the contract time, the Contractor shall comply with the procedure set forth in Article, "Changes," of the GENERAL CONDITIONS.
   3. Do not permit submittal copies without an appropriate final "Action" marking by the Architect to be used in connection with the work.
   4. Submissions of “Approved Equals:” In addition to standard submittal requirements, for each item submitted as an “approved equal” submit the following:
      a. Comparison of proposed approved equal=s characteristics with the salient characteristics of the specified product demonstrating that the proposed approved equal fully meets or exceeds the specifications,
      b. Drawings and samples as required for specified products,
      c. Any changes required in other elements (if any) because of the submission of the proposed approved equal, and
      d. A listing of sources of supply, maintenance service (if applicable), and replacement parts.

B. Submittal Procedures: Make all submittals to the Architect or to an individual designated by the Architect.
   1. Only the Architect or an individual designated by the Architect can approve or disapprove submittals. Deviations and variations from the contract requirements contained in the submittal can be approved only by the Architect or by an individual delegated such authority by the Architect.
   2. Costs associated with transmittal of submittals shall be borne by the Contractor.
   3. Review Time: Except as specified elsewhere, allow for a review period of thirty (30) calendar days after receipt of the submittals by the Architect. Advise the Architect on each submittal, as to whether processing time is critical to the progress of the work, and if work would be expedited if processing time could be shortened. No extension of time will be authorized because of the Contractor's failure to transmit submittals or re-submittals to the Architect sufficiently in advance of the work. For submittals of items requiring coordination between different trades or subcontractors, review time period starts from the time that all required submittals have been received by the Architect and ends when

submittal leaves the Architect. The Contractor is required to coordinate all work involving associated sub-trades and produce coordinated drawings for submittal where required by individual specification sections or as required below.

4. Preparation of Submittals: Provide permanent marking on each submittal to identify project, date, Contractor, subcontractor, supplier, manufacturer, submittal name and similar information to distinguish it from other submittals. Label as to number and title of specification section, drawing number and detail references, as appropriate. Show Contractor's executed review and approval marking and provide space of not less than 20 sq. in. for the Architect's "Action" marking. Package each submittal appropriately for transmittal and handling. Submittals which are received from sources other than through the Contractor's office will be returned without action.
5. Number of Copies: Submit a minimum of four (4) copies of each submittal requested.

C. Specific Submittal Requirements: Specific submittal requirements for individual units of work are specified in the applicable specification section. Except as otherwise indicated in the individual specification sections, comply with the requirements specified herein for each type of transmittal.

1. Product Data: Collect required product data into a single submittal for each unit of work or system. Mark each copy to show which choices and options are applicable to the project. Where product data has been printed to include information on several similar products, some of which are not required for use on the project, or are not included in this submittal, mark the copies to show clearly that such information is not applicable.
   a. Submittals: Submittal is for information and record, unless otherwise indicated. Initial submittal is final submittal unless returned by the Architect, marked with an action which indicates an observed non compliance.
      1) Initial Submittal: Except as otherwise indicated, submit four (4) copies of each required product data submittal, plus two (2) additional copies where required for maintenance manuals. The Architect will retain two (2) copies and return the other marked with "Action" and corrections or modifications as required.
2. Shop Drawings: Provide special notation of dimensions that have been established by field measurement. Highlight, encircle or otherwise indicate deviations from the Contract Documents on the shop drawings.
   a. Preparation: Submit newly prepared information, drawn to accurate scale on sheets not less than 8-1/2" x 11"; except for actual pattern or template type drawings, the maximum sheet size shall not exceed 36" x 48". Indicate the name of the firm that prepared each shop drawing and provide appropriate project identification in the title block.
      1) Do not reproduce contract documents or copy standard printed information as the basis of shop drawings.
      2) Use standard architectural scales for all drawings.
   b. Coordination Drawings: Prior to installation of sleeves and inserts for equipment, and/or the performance of work in spaces in which two or more trades are involved and in which the probability of interference exists as determined by either the Contractor or the Architect, submit composite coordination drawings for the Work. Show sequencing and relationship of separate units of work which must interface in a restricted manner to fit in the space provided, or function as indicated. In case interference develops, the Architect will decide which work shall be relocated, regardless of which was installed first. Coordination drawings are considered shop drawings and must be definitive in nature.

c. Equipment and Systems: Shop Drawings for equipment and systems shall show ratings (where applicable), and how components are assembled, function together, and how they will be installed. Shop drawings, product data, certificate of conformance or compliance, certified test or inspection reports, and other submittals for equipment, systems, and their component parts shall be coordinated and submitted as a unit. Multiple or piecemeal submissions are not acceptable except where prior approval is obtained from the Architect, in which case a list of data to be submitted later shall be included with the first submission.

d. Initial Submittal: One correctable 1 1/2 mil translucent polyester reproducible print and one blue line or black line; reproducible will be returned.

e. Final Submittal: 3 prints, plus 2 additional prints where required for maintenance manuals; 2 will be retained and remainder will be returned, one of which is to be marked up and maintained by Contractor as "Record Document."

3. Samples: Documentation required specifically for sample submittals includes a generic description of the sample, the sample source or the product name or manufacturer, compliance with governing regulations and recognized standards. In addition, indicate limitations in availability, sizes, delivery time, and similar limiting characteristics.

a. Preparation: Where possible provide samples that are physically identical with the proposed material or product to be incorporated in the work; provide full scale, fully fabricated samples cured and finished in the manner specified. Where variations in color, pattern, or texture are inherent in the material or product represented by the sample, submit not less than 3 units of the sample, which show the full range of variations. Where samples are specified for the Architect's selection of color, texture or pattern, submit a full set of available choices for the material or product. Mount, display, or package samples in the manner specified to facilitate the review of indicated qualities. Prepare samples to match the Architect's sample where so indicated.

b. Submittal: Submit 3 sets of samples in the final submittal, one set will be returned. If the submittal is for the Architect's selection of color, pattern, texture or similar characteristics from a manufacturer's standard range of choices, only a single set of samples is required for a preliminary submittal. The final submittal may then be limited only to those choices selected by the Architect for final incorporation into the Work.

c. Mock-Ups and similar samples specified in individual work sections are special types of samples. Comply with sample submittal requirements to the fullest extent possible. Process transmittal forms to provide a record of activity.

4. Miscellaneous Submittals:

a. Inspection and Test Reports: Classify each inspection and test report as being either "shop drawings" or "product data" depending on whether the report is specially prepared for the project, or a standard publication of workmanship control testing at the point of production. Process inspection and test reports accordingly.

b. Offsite Fabrication Facilities: Provide for scheduled visits to off site fabrication facilities by the Architect. Make all facilities, including storage areas and plant, open and accessible to review of procedures, materials used and storage and shipping methods.

c. Warranties: Refer to Article "Products" for specific general requirements on warranties, product bonds, workmanship bonds and maintenance agreements. In addition to copies desired for the Contractor's use, furnish 2 executed copies of such warranties, bonds or agreements. Provide 2 additional copies where required for maintenance manuals.

d. Traffic Control: Submit a site plan and details for review and approval by the Architect to diagrammatically indicate proposed measures for safely and efficiently controlling and re-routing traffic as necessary to enable construction work, deliveries, paving, testing operations and other activities. Indicate schedules of activities occurring hourly before, during and after the normal workday. At all times provide minimal disruption to the day-to-day activities occurring on the site and at adjacent locations.

e. Safety Plan: Provide a Safety Plan meeting OSHA and AOC safety Guidelines for work in hazardous environments (Areas where high voltage and large moving equipment are found). Plan shall define number of individuals on the job site(s), their training, typical safety equipment to be used, and procedures for addressing typical hazardous conditions.

5. Closeout Submittals: Refer to Article "Project Closeout" and to individual sections of these specifications for specific submittal requirements of project closeout information, materials, tools, and similar items.

D. Architect's Action: Except for submittals for the record and similar purposes, where action and return on submittals is required or requested, the Architect will review each submittal and mark with appropriate "Action." Where the submittal must be held for coordination, the Architect will so advise the Contractor without delay.

1. If no changes to the drawing are required, three (3) prints and the reproducible drawing will be returned to the Contractor, bearing the stamp of the Architect, stating "APPROVED."
2. If changes to the drawing are required, but are of such minor nature that fabrication and/or construction can proceed in accordance with the correction noted by the Architect without resubmission of the drawing three (3) prints and the reproducible drawing will be returned to the Contractor bearing the Stamp of the Architect stating "Approved as Noted." The Contractor shall proceed with fabrication and/or construction in accordance with the Architect's corrections, and resubmit corrected copy for the Architect's records.
3. If changes to the drawing are required, but are of such nature that fabrication or construction cannot proceed, three (3) prints and the reproducible drawing will be returned to the Contractor, bearing the stamp of the Architect stating "Revise and Resubmit." In such a case, the Contractor shall resubmit the drawings, properly corrected. Upon resubmission of shop drawings, if any corrections or changes are made other than those marked by the Architect, the Contractor shall clearly indicate any such corrections or changes made on his own initiative.
4. If the product does not meet the specification requirements, the number of copies outlined above will be returned to the Contractor, bearing the stamp of the Architect stating - “REJECTED.” In such a case, the Contractor shall submit a new product which complies with the technical specifications.
5. Other Action: Where the submittal is returned, marked with the Architect's explanation, for special processing or other Contractor activity, or is primarily for information or record purposes, the submittal will be marked as follows:
   a. Not Subject to Review: This review category will apply to submittals which are not required by the Contract Documents and are inadvertently submitted and stamped; or
   b. Received/No Action Required: This category will be used when returning “Informational Submittals” for which the Architect is not required to take action.

1.7 TEMPORARY FACILITIES AND CONTROLS:

A. Description of Requirements: This article specifies administrative and procedural requirements for temporary services and facilities, including such items as temporary utility services, temporary construction and support facilities, and project security and protection.
   1. Use Charges: No cost or usage charges for temporary services or facilities are chargeable to the Government. Cost or use charges for temporary services or facilities will not be accepted as a basis of claims for a change order extra. All materials and equipment provided by the Contractor for temporary facilities shall remain the property of the Contractor.
   2. Materials and Execution: Provide new materials and equipment for temporary services and facilities; used materials and equipment that are undamaged and in serviceable condition may be used, if acceptable to the Architect. Provide only materials and equipment that are recognized as being suitable for the intended use, by compliance with appropriate standards. Do not use materials of temporary service in permanent installation.

B. Quality Assurance: Comply with the requirements of the District of Columbia Building Code and regulations governing construction and local industry standards, in the installation and maintenance of temporary services and facilities.
   1. Standards: Comply with the requirements of NFPA Code 241, "Building Construction and Demolition Operations", the ANSI A10 Series standards for "Safety Requirements for Construction and Demolition", and the NECA National Joint Guideline NJC 6 "Temporary Job Utilities and Services".
      a. Refer to "Guidelines for Bid Conditions for Temporary Job Utilities and Services", as prepared jointly by Associated General Contractors of America (AGC) and American Specialty Contractors, Inc. (ASC) for industry recommendations.
      b. Trade Jurisdictions: The assigned responsibilities for the installation and operation of temporary utilities are not intended to interfere with the normal application of trade regulations and union jurisdictions applicable to the work.
   2. Inspections: Inspect and test each service before placing temporary utilities in use. Arrange for required inspections and tests by governing authorities, and obtain required certifications and permits for use.

C. Job Conditions: Provide each temporary service and facility ready for use at each location when the service or facility is first needed to avoid delay in performance of the Work. Maintain, expand as required and modify temporary services and facilities as needed throughout the progress of the Work. Do not remove until services or facilities are no longer needed, or are replaced by the authorized use of completed permanent facilities.

D. Temporary Utilities: The Architect will designate a connection point for installation of temporary service to the project to existing service. Arrange with the Architect for an acceptable time when service can be interrupted, where necessary to make connections for temporary services.
   1. Temporary Electric Power Service: Electrical energy will be supplied by the Government, but the Contractor shall install and maintain all necessary conduit, wiring, and devices needed to execute the work. Install all wiring in flexible conduit or armored cable with minimum No. 12 gage wire. Portable cords for small power tools shall be properly grounded and installed as approved by the Architect. Provide receptacle outlets equipped with ground fault circuit interrupters, reset button and pilot light, for plug in connection of power tools and equipment. The Government will not be held responsible for power outages beyond its control.

a. Comply with applicable NEMA, NECA and UL standards and governing regulations for materials and layout of temporary electric service, including those requirements included in Division 16 sections.
b. Install service and grounding in compliance with the National Electric Code (NFPA 70), District of Columbia Building Code, and Power Company requirements. Include necessary service connection, service switch, meters, transformers, overload protected disconnect, main distribution switch gear, panelboards, wiring, cables, devices, and accessories.

2. Temporary Lighting: Provide local switching of temporary lighting, spaced to allow lighting to be turned off in patterns to conserve energy and retain light suitable for work in progress, access traffic, security check and project lock up.
a. Provide general service incandescent lamps of wattage indicated or required for adequate illumination. Protect lamps with guard cages or tempered glass enclosures, where fixtures are exposed to breakage by construction operations. Provide exterior fixtures where fixtures are exposed to weather or moisture. Keep sockets equipped with active lamps. Where feasible, utilize fluorescent type fixtures.

3. Water Service: Water will be provided for project use by the Government at existing sources. Provide temporary piping, connections, maintenance and other work required to deliver water required for the project.
a. As soon as construction operations at each floor level require water, extend service, the full height of the building to form a temporary water and fire water standpipe. Provide distribution piping for temporary water to each location of usse. As a minimum, provide one ¾" outlet for each floor level of construction spaced so that water can be reached with a 100 foot length of hosse. Provide one ¾" flexible rubber hosse 100 feet long with an adjustable nozzle, at each outlet where work requiring water is in progress.

4. Temporary Sanitary Facilities: Sanitary facilities include temporary toilets, wash facilities and drinking water fixtures. Use of the designated existing Government toilet facilities will be permitted, provided these facilities are properly cleaned and maintained in a condition acceptable to the Government. Immediately prior to Final Acceptance, restore these facilities to the condition prevalent at the time of initial use. Do not clean tools or equipment in building toilet rooms.

E. Temporary Construction and Support Facilities:
1. Field Offices and Sheds: Provide a reasonably neat and uniform appearance in temporary construction and support facilities acceptable to the Architect. A temporary office will be provided in the building for the Contractor's use. For fabrication shops, storage sheds and similar construction, provide either standard prefabricated or mobile units or the equivalent job-built construction. Provide support facilities that can be maintained properly throughout their use at the project site.
a. Provide fire resistant construction for shops, and sheds located within the construction work area, or within 50 feet of building lines.
b. Locate storage and fabrication sheds and other support facilities for easy access to the Work within the allocated staging area so that facilities will not block required exits or firemen's access to the building.
c. Except as otherwise indicated, make the change over from use of temporary services and facilities to use of permanent services and facilities at the earliest feasible date at each portion of the building, to minimize hazards and interferences with performance of the Work.

d. Maintain field offices, storage and fabrication sheds, temporary sanitary facilities, waste collection and disposal systems, and project identification and temporary signs until near final acceptance. Immediately prior to final acceptance, with the Architect's approval, remove these facilities.

2. Storage and Fabrication Sheds: Install storage and fabrication sheds or trailers, properly sized, furnished and equipped, as required to accommodate the Work. Comply with applicable provisions specified elsewhere for distribution and use of temporary utilities.

3. Temporary Enclosures: At the earliest practical time provide temporary enclosure of materials, equipment, work in progress and completed portions of the Work to provide protection to the Work and employees from effects of exposure, foul weather, other construction operations, and similar activities on the site.

a. Provide temporary enclosures where temporary heat is needed and the permanent building enclosure is not yet completed, and there is no other adequate provision for containment of temporary heat. Coordinate enclosures with ventilation and material drying or curing requirements to avoid dangerous conditions and effects.

4. Project Signage: No signs, other than safety signs, may be erected on the site unless specifically indicated otherwise.

F. Security and Protection Facilities: Provide and maintain all necessary barricades, lights, and other safeguards for the protection of Members of Congress, Government employees, Contractor's employees and the general public from injury. Protect materials and work on the site, whether incorporated in the work or not, against damage or loss from any cause.

1. Protect all electric, telephone, water, gas, sewer, steam, and other underground utility lines in sidewalks, streets or other areas, in, under or around the site, to the satisfaction of the Architect, the District of Columbia, and other authorities having jurisdiction. Prior to commencing work which may affect or disturb underground utilities, consult with the Architect.

2. Provide a reasonably neat and uniform appearance in security and protection facilities acceptable to the Architect.

3. Except for utilization of permanent fire protection facilities, as soon as available in each area, do not change over from use of temporary security and protection facilities to use of permanent facilities until near final acceptance, or for longer periods of time as requested by the Architect.

4. Barricades and Fences: Comply with recognized standards and code requirements for the erection of substantial, structurally adequate barricades where needed to prevent accidents and losses. Paint with appropriate colors, graphics and warning signs to inform personnel at the site and the public, of the hazard being protected against. Provide lighting where appropriate and needed, including flashing red lights where appropriate.

G. Temporary Controls:

1. Traffic Control: Plan vehicular access methods, locations and timing of deliveries in a manner to minimize interference with street and pedestrian traffic and to conform to District of Columbia regulations. Do not block or obstruct public streets, driveways and walkways adjacent to the site at any time during performance of the work without proper authorization. Do not permit trucks of any kind to use existing sidewalks without prior authorization of the Architect.

2. Collection and Disposal of Wastes: Establish a system for daily collection and disposal of waste materials from construction areas and elsewhere on the site. Enforce requirements strictly. Do not hold collected materials at the site longer than 7 days during normal weather or 3 days when the daily temperature is expected to rise above 80 deg. F

(27 deg. C). Handle waste materials that are hazardous, dangerous, or unsanitary separately from other inert waste by containerizing appropriately. Dispose of waste material in a lawful manner.

a. Burying or burning of waste materials on the site will not be permitted.
b. Washing waste materials down sewers or into waterways will not be permitted.
c. Provide rodent proof containers located on each floor level of construction work, to encourage depositing of garbage and similar wastes by construction personnel.

3. Janitorial Services: Provide daily janitorial services for temporary offices, first aid stations, toilets, wash facilities, lunchrooms and similar areas. Require users of other temporary facilities to help maintain a clean and orderly premises.
4. Dust Control: During periods of construction activity creating dust conditions sprinkle periodically the site areas disturbed by Contractor's operation or treat with dust suppressors to control dust. Dry power brooming will not be permitted. Use vacuuming, wet mopping, wet sweeping or wet power brooming. Air blowing will be permitted only for cleaning non particulate debris. Use only wet cutting procedures for unit masonry and concrete.
5. Noise Control: Avoid the use of tools and equipment that produce harmful noise. Restrict the use of noise making tools and equipment to hours of use indicated in paragraph 1.2.B.2.D.
6. Environmental Protection: Provide general protection facilities, operate temporary facilities, conduct construction activities, and enforce strict discipline for personnel on the site in ways and methods that comply with environmental regulations, and that minimize the possibility that air, waterways and subsoil might be contaminated or polluted, or that other undesirable effects might result from the performance of work at the site.
7. Snow and Ice Control: Keep work areas clear of snow adequately to permit access while work is in progress. Do not allow snow and ice to accumulate so as to overload or otherwise endanger any portion of the Work. Do not allow snow and ice to accumulate over surfaces that can be damaged upon thawing.

H. Installation, Operation, Termination and Removal: Use qualified tradesmen for installation of temporary services and facilities. Locate temporary services and facilities where they will serve the entire project adequately and result in minimum interference with the performance of the Work.

1. Supervision: Limit availability of temporary services and facilities to essential and intended uses to minimize waste and abuse. Do not permit temporary installations to be abused or endangered. Do not allow hazardous, dangerous or unsanitary conditions to develop or persist on the project site.
2. Maintenance: Operate and maintain temporary services and facilities in good operating condition throughout the time of use and until removal is authorized. Protect from damage by freezing temperatures and similar elements.
   a. Prevent water filled piping from freezing by use of ground covers, insulation, by keeping drained or by temporary heating. Prevent contamination of water sources.
3. Termination and Removal: Unless the Architect requests that it be maintained for a longer period of time, remove each temporary service and facility promptly when the need for it or a substantial portion of it has ended, or when it has been replaced by the authorized use of a permanent facility, or no later than substantial completion. Repair damaged work, clean exposed surfaces and replace work which cannot be satisfactorily repaired. Contract time includes the time required for final cleanup of premises.

a. Immediately prior to final acceptance, clean and renovate permanent services and facilities that have been used to provide temporary services and facilities during the construction period.
b. Restoration of Site and Adjacent Areas : Restore the site and the adjacent areas used for staging, traffic, protection and storage of materials to their conditions prior to start of work. This includes, but is not limited to all signage and lighting Procedures which may be required include removal of contaminated materials or other procedures as may be necessary.

1.8 PRODUCTS:

A. General: Refer to clause, "Materials and Workmanship," of the GENERAL CONDITIONS. After execution of the Contract, the Contractor's requests for changes in the products, materials, equipment and methods of construction required by the Contract Documents are considered requests for "contract modifications," and are subject to the requirements specified in Architect of the Capitol, "Official Procedure for Making Changes in Contracts." Revisions to the contract documents, where requested by the Architect are considered as "changes" not substitutions.

B. Quality Assurance: Compatibility of products is a basic requirement of product selection. When the Contractor is given the option of selecting between two or more products for use on the project, the product selected must be compatible with other products previously selected, even if the products previously selected were also Contractor options. The complete compatibility between various choices available to the Contractor is not assured by the various requirements of the Contract Documents, but must be provided by the Contractor. Provide a single product for each required product selection, regardless of whether that product selection is provided by more than one sub-contractor. Do not alter product brands or series for a given product selection during the life of the contract without written approval of the Architect.
1. Source Limitations: To the fullest extent possible and subject to the restrictions of the "Buy American Act," provide products of the same generic kind, from a single source, for each unit of work.

C. Product Delivery, Storage, and Handling: Deliver, store, and handle products in accordance with manufacturer's recommendations, using means and methods that will prevent damage, deterioration and loss, including theft. Control delivery schedules to minimize long term storage at the site and to prevent overcrowding of construction spaces, and to ensure minimum holding or storage times for items known or recognized to be flammable, hazardous, easily damaged, or sensitive to deterioration or loss.
1. Deliver products to the site in the manufacturer's sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, ventilating, and installing.
2. Store products at the site in a manner that will facilitate inspection and measurement of quantity or counting of units, and in conformance with manufacturer=s instructions.
3. Store heavy materials away from the project structure in a manner that will not endanger the supporting construction.

D. General Product Compliance: Requirements for individual products are indicated in the Contract Documents; compliance with these requirements is in itself a contract requirement. These requirements may be specified in any one of several different specifying methods, or in any combination of these methods.

1. Procedures for Selecting Products: The Contractor's options in selecting products are limited by requirements of the Contract Documents and governing regulations. They are not controlled by industry traditions or procedures experienced by the Contractor on previous construction projects.
   a. Performance Specification Requirements: Where the specifications require compliance with indicated performance requirements, provide products that comply with the specific performance requirements indicated, and that are recommended by the manufacturer for the application indicated. The manufacturer's recommendations may be contained in published product literature, or by the manufacturer's individual certification of performance. General overall performance of a product is implied where the product is specified for specific performances.
   b. Compliance with Standards, Codes and Regulations: Where the specifications require only compliance with an imposed standard, code or regulation, the Contractor has the option of selecting a product that complies with specification requirements, including the standards, codes and regulations.
   c. Visual Selection: Except as otherwise indicated, where specified product requirements include the phrase "...as selected from the manufacturer's standard colors, patterns, textures..." or similar phrases, the Contractor has the option of selecting the product and manufacturer, provided the selection complies with other specified requirements. The Architect is subsequently responsible for selecting the final color, pattern and texture from the product line selected by the Contractor.

E. General Product Requirements: Provide products that comply with the requirements of the contract documents and that are undamaged and, unless otherwise indicated, unused at the time of installation. Provide products that are complete with all accessories, trim, finish, safety guards and other devices and details needed for a complete installation and for the intended use and effect.
   1. Provide products that are essentially the standard catalogued products of manufacturers regularly engaged in production of such products and that are the manufacturer's latest standard design that complies with the specification requirements. Equipment shall essentially duplicate items that have been in satisfactory commercial and industrial use at least two years, or more if otherwise specified, prior to bid opening; or in lieu thereof shall have been used and operated in a test installation which, in the opinion of the Architect, duplicate its field performance for the same period of time. The Architect reserves the right to require the Contractor to submit evidence to this effect for his approval. When two units of the same class of equipment are required, these units shall be the product of a single manufacturer; however, the component parts of the system need not be the products of the same manufacturer.
   2. Provide standard, domestically produced products for which the manufacturer has published assurances that the products and its parts are likely to be available to the Government at a later date.
   3. Nameplates: Except as otherwise indicated for required labels and operating data, do not permanently attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products which will be exposed to view either in occupied spaces or on the exterior of the completed project.

F. Installation of Products: Except as otherwise indicated in individual sections of these specifications, comply with the manufacturer's instructions and recommendations for installation of the products in the applications indicated. Anchor each product securely in place, accurately

located and aligned with other work. Clean exposed surfaces and protect surfaces as necessary to ensure freedom from damage and deterioration at time of acceptance.

1.9 PROJECT CLOSEOUT:

A. Definitions: “Project Closeout” is the term used to describe certain collective project requirements, indicating completion of the work that are to be fulfilled near the end of the Contract Time in preparation for final acceptance and occupancy of the Work by the Government, as well as final payment to the Contractor and the normal termination of the Contract.
   1. Time of closeout is directly related to "Final Acceptance." Therefore, the time of closeout may be either a single time period for the entire Work or a series of time periods for individual elements of the Work that have been certified as substantially complete at different dates. This time variation, if any, shall be applicable to the other provisions of this Division.

B. Final Cleaning: Special cleaning requirements for specific units of Work are included in the appropriate sections of Division 2 through 16. General Cleaning during the regular progress of the Work is required by the GENERAL CONDITIONS and is included under Article "Temporary Facilities and Controls".
   1. Cleaning: Provide final cleaning of the Work at the time indicated. Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit of work to the condition expected from a normal, commercial building cleaning and maintenance program. Comply with the manufacturer's instructions for operations.
      a. Complete the following cleaning operations before requesting the Architect's inspection for Final Acceptance.
      b. Remove labels which are not required as permanent labels.
      c. Clean transparent materials, including mirrors and glass in doors and windows, to a polished condition. Remove putty and other substances which are noticeable as vision obscuring materials. Replace chipped or broken glass and other damaged transparent materials.
      d. Clean exposed exterior and interior hard surfaced finishes to a dust free condition, free of dust, stains, films and similar noticeable distracting substances. Restore reflective surfaces to their original reflective condition. Leave concrete floors broom clean. Vacuum carpeted surfaces.
      e. Wipe surfaces of mechanical and electrical equipment clean. Remove excess lubrication and other substances. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.
      f. Clean the project site, including landscape development areas, of rubbish, litter and other foreign substances. Sweep paved areas to a broom clean condition; remove stains, spills and other foreign deposits. Rake grounds that are neither paved nor planted, to a smooth even textured surface.
   2. Pest Control: Engage an experienced exterminator to make a final inspection of the project, and to rid the project of rodents, insects and other pests.
   3. Compliance: Comply with safety standards and governing regulations for cleaning operations. Remove waste materials from the site and dispose of in a lawful manner.
      a. Where extra materials of value remaining after completion of associated work have become the Government's property, salvage or dispose of these materials to the Government's best advantage as directed.

C. Record Document Submittals: Specific requirements for record documents are indicated in the individual sections of these specifications. Other requirements are indicated in the GENERAL CONDITIONS. General submittal requirements are indicated in the various "Submittals" articles of individual sections of the Project Manual.
   1. Do not use record documents for construction purposes; protect from deterioration and loss in a secure, fire resistive location; provide access to record documents for the Architect's reference during normal working hours.
   2. Record Documents: Maintain a record set of blue or black line white prints of contract drawings and shop drawings in a clean, undamaged condition. Mark up the set of record documents to show the actual installation where the installed work varies substantially from the work as originally shown. Mark whichever drawing is most capable of showing the actual "field" condition (“as-built” condition) fully and accurately; however, where shop drawings are used for mark up, record a cross reference at the corresponding location on the working drawings. Give particular attention to concealed work that would be difficult to measure and record at a later date.
      a. Mark record sets with red erasable pencil and, where feasible, use other colors to distinguish between variations in separate categories of work.
      b. Note related change order numbers where applicable.
      c. Organize record drawing sheets into manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identification on the cover of each set.
      d. Materials and Tools: Refer to individual sections of the Project Manual for required quantities of spare parts, extra and overrun stock, maintenance tools and devices, keys, and similar physical units to be submitted.

D. Maintenance Manuals: Organize operating and maintenance data into suitable sets of manageable size. Bind data into individual binders properly identified and indexed. Bind each set of data in a heavy-duty 2 inch, 3 ring vinyl covered binder, with pocket folders for folded sheet information. Mark the appropriate identification on both front and spline of each binder.

E. Warranties and Bonds: At Final Completion compile two copies of each required warranty and bond properly executed by the Contractor, or by the Contractor, subcontractor, supplier, or manufacturer. Organize the warranty documents into an orderly sequence based on the table of contents of the Project Manual.
   1. Bind warranties and bonds in heavy-duty, commercial quality, durable 3-ring vinyl covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2" by 11" paper.
      a. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product, and the name, address and telephone number of the installer.
      b. Identify each binder on the front and the spine with the typed or printed title "WARRANTIES AND BONDS," the Project title or name, project number, and the name of the Contractor.
   2. When operating and maintenance manuals are required for warranted construction, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.

F. General Operating and Maintenance Instructions: Arrange for each installer of operating equipment and other work that requires regular or continuing maintenance, to meet at the site

with the Government's personnel to provide necessary basic instruction in the proper operation and maintenance of the entire Work. Where installers are not experienced in the required procedures, include instruction by the manufacturer's representatives.

G. Closeout Submittals: Prior to requesting Final Inspection, submit the following:
1. Project Record Documents, properly annotated and in the format required.
2. Copies of Warranties and Bonds.
3. Operation and Maintenance data.
4. All required operating or special tools required in individual sections.

H. Prerequisites to Final Acceptance: Complete the following before requesting the Architect's final inspection for certification of final acceptance, and final payment as required by the GENERAL CONDITIONS. List known exceptions, if any, in the request.
1. Submit the final payment request with final releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required.
2. Submit an updated final statement, accounting for final additional changes to the Contract Sum.
3. Submit a certified copy of the Architect's final punch list of itemized work identified to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance and has been endorsed and dated by the Architect.
4. Submit final meter readings for utilities, a measured record of stored fuel, and similar data either as of the date of substantial completion, or else when the Government took possession of and responsibility for corresponding elements of the Work.
5. Submit consent of surety.

I. Reinspection Procedures: The Architect will reinspect the Work upon receipt of the Contractor's notice that the work, including punchlist items resulting from earlier inspections, has been completed, except for these items whose completion has been delayed because of circumstances that are acceptable to the Architect.

J. Removal of Protection: Except as otherwise indicated or requested by the Architect, remove temporary protection devices and facilities which were installed during the course of the work to protect previously completed work during the remainder of the construction period.

END OF SECTION 01000

SECTION 01230 - OPTIONS

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes administrative and procedural requirements for contract options.

1.2 DEFINITIONS

A. Option: An option proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to or deducted from the Base Bid amount if the Architect decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
   1. The cost or credit for each option is the net addition to or deduction from the Contract Sum to incorporate the option into the Work. No other adjustments are made to the Contract Sum.

1.3 PROCEDURES

A. Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of the option into the Project.
   1. Include as part of each option, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of an option.

B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each option. Indicate if options have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to options.

C. Execute accepted options under the same conditions as other work of the Contract.

D. Schedule: A Schedule of Options is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each option.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF OPTIONS

A. Option No. 1 - Provide and install 2 Manlifts per drawings and specifications.

END OF SECTION 01230

SECTION 01546 - SAFETY AND HEALTH

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK:

A. General: This section, general in nature, is applicable to all work performed under this contract and identifies some of the precautions necessary to protect the safety and health of employees, visitors, occupants and contract employees, and to prevent the loss of or damage to property and the environment.

1. Note the Construction Contractor submittal requirements outlined in Part 1 paragraph "Submittals" of this Section.

1.2 REFERENCES:

A. General: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only. Exclusion of any specific regulations/standards required by Federal and/or local codes does not relieve the Contractor of their legal and contractual obligations to adhere to such requirements.

B. National Standards / Code of Federal Regulations (CFRs):

1. 29 CFR 1910 - OSHA Occupational Safety and Health Standards.
2. 29 CFR 1926 - OSHA Safety and Health Regulations for Construction.
3. 40 CFR Parts 700-799, Subchapter R - Toxic Substance Control Act (TSCA).
4. 40 CFR Parts 50-99, Air Programs.
5. 40 CFR Parts 260-299, Hazardous Waste Management System (radionuclides).
6. 40 CFR Part 761 - Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions.
7. 40 CFR Parts 104-140 and 401-471, Water Programs.
8. DOT Manual of Uniform Traffic Control Devices.
9. Americans with Disabilities Act (ADA), current with updates.

C. Related Building and System Codes:

1. International Building Code (IBC), 2003.
2. International Existing Building Code (IEBC), 2003.
3. National Fire Code - NFPA 101, 2003.
4. International Electrical Code, 2003; and related NEMA, NECA, and UL Standards.
5. International Mechanical Code, 2003.
6. International Plumbing Code, 2003.

D. Federal Standard 313A - Material Safety Data Sheets, Preparation and Submission.

E. Related District of Columbia, state, and local regulations shall apply.

1.3 DEFINITION OF HAZARDOUS MATERIALS:

A. General: Refer to hazardous and toxic materials/substances, Subparts H and Z of 29 CFR 1910 and related parts of 29 CFR 1926; 40 CFR 261; and to others as defined in Federal Standard 313.

B. Those hazardous materials most commonly encountered can include pesticides, cleaning agents, paints, adhesives, strippers, solvents, asbestos, polychlorinated biphenyls (PCB's), mercury vapor lamps, but may include others. Any unlabeled substance should be handled as hazardous material until properly identified.

C. All suspect asbestos containing materials (e.g., boiler insulation, duct insulation, pipe insulation), surfacing materials (i.e., plaster and sprayed-on fireproofing) and miscellaneous materials (i.e., asphalt flooring, ceiling tiles, adhesives and mastics, drywall, roofing, gaskets and cement board), must be considered asbestos containing unless proven otherwise in accordance with 29 CFR 1926.1101.

D. Pre-1978 Surfaces: All finished/painted surfaces of buildings constructed prior to 1978 shall be considered finished with lead based paint unless proven otherwise.

E. Products likely to contain PCB's include electrical transformers, capacitors, voltage regulators, oil switches, and some fluorescent light ballasts. Transformer vaults with PCB contaminated floors are identified by signage at the entry door (refer to Part 3 of this Section, article “Cautionary Procedures at Existing Vaults”).

F. Products likely to include mercury include fluorescent light tubes, switches, gauges, thermostats, and older thermometers.

1.4 QUALITY ASSURANCE:

A. Pre-Construction Safety Meeting: Representatives of the Contractor must meet with the Contracting Officer and his/her representative(s) prior to the start of work under this contract. The purpose of the pre-construction meeting is to review the Contractor's Safety and Health Program and Policies, and to discuss the implementation of all safety and health provisions pertinent to the work to be performed under the contract. The Contractor shall be prepared to discuss, in detail, the measures he/she intends to take in controlling any unsafe or unhealthy conditions associated with the work to be performed under the contract. If directed by the Contracting Officer, this meeting may be held in conjunction with other pre-construction meetings such as the General Pre-Construction meeting. The level of detail of the safety meeting is dependent upon the nature of the work and the potential inherent hazards. The Contractor's principal on-site representative(s), the general superintendent and his/her safety representative(s) shall be in attendance.

B. Hazardous Materials: Hazardous materials have been identified in the project building and will be encountered in the Work. Refer to Section 13281 - “Asbestos Abatement Procedures” for Roof Plan showing location of test samples, and List of Roof Asbestos Samples. Hazardous materials shall be removed or encapsulated by the contractor. If additional materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify the Architect.

C. Compliance/Conflicts: All work shall comply with applicable Federal, state and local safety and health requirements. Where there is a conflict between applicable regulations, the most stringent shall take precedence.

D. Contractor Responsibility: All Contractors shall assume full responsibility and liability for compliance with applicable regulations pertaining to the health and safety of personnel during the execution of work, and shall hold the Government harmless for any action on his/her part, or that of his/her employees or subcontractors, which results in illness, injury or death. The Contractor shall designate a single point-of-contact who is authorized to act on behalf of the contracting firm, authorized to take immediate corrective actions, and assigned the task of daily inspections and reporting outlined herein. Construction Contractors shall comply with the following additional requirements in accordance with 29 CFR 1926.16 (Prime/Subs):

1. Compliance with the accepted Accident Prevention Plan written by the prime Contractor for the specific work, submitted to the government, and reviewed by the COTR. The Contractor's plan will be job specific and will include work to be performed by the subcontractors, and measures to be taken by the Contractor to control hazards associated with materials, services, or equipment provided by suppliers.
2. Regularly scheduled safety meetings shall be held at least once a week for all supervisors on the project to review past activities, to plan ahead for new or changed operations, and to establish safe working procedures for the anticipated hazards. An outline of each meeting shall be submitted through the COTR to the Contracting Officer.
3. At least one "toolbox" safety meeting shall be conducted weekly by field supervisors or foreman for all workers. An outline report of the meeting, including date, time, duration, attendance, subjects discussed and the name of the director shall be maintained and copies furnished to the designated authority on request.

1.5 SUBMITTALS:

A. Submittal “Punch-List:” A submittal punch list for projects involving "other" hazardous materials as identified in the Construction Contractor's Safety and Health Program and Policies (paragraph B, below) and/or other recognized flammable or toxic products identified in the referenced codes/standards.

B. Contractor's Safety and Health Program and Policies: Submit a Plan of Action for handling hazardous materials (except for asbestos, lead based paint, PCBs and mercury lamps as they are covered by specific sections) and/or flammable or toxic products. Work shall not commence until the Contractor’s safety program has been reviewed by the Architect. The Construction Contractor's Plan of Action shall contain the following:

1. Activity Hazard Analysis and Accident Prevention Plan: Identification of anticipated hazards, problems, and proposed mitigation measures/mechanisms.
2. Description of how applicable safety and health regulations and standards are to be met.
3. Protection of the public or others not related to the operation. Maintain code-compliant means of egress for project duration.
4. Means of protection for adjacent non-construction areas, permanent and temporary access ways, and occupants and for controlling noise/dust/fumes/debris generated by the work.

5. Contractor Safety Officer: Identify a lead Safety Officer and alternates, including 24-hour contact information for each.
6. Specialized training and experience of employees to be used for the work.
7. Type of protective equipment and work procedures to be used.
8. Material Safety Data Sheets (MSDSs) for, and proposed procedures for using, disposing of, or storing toxic/hazardous materials (also see 29 CFR1910.1200). All management and disposal of wastes shall be in accordance with Federal, states and local regulations.
9. Phasing requirements to minimize impact to non-construction work activities.
10. Emergency procedures for handling accidental spills, releases or potential exposures.
11. Interfacing of trades and control of subcontractors, if applicable.
12. Identification of any required analyses, test demonstrations, and validation requirements.
13. Methods of certification for compliance.
14. Hazard Communications Plan.
15. Trenching and Shoring Plan.
16. Confined Spaces employee certifications and related work procedures.
17. Multi-Employer Worksite Plan.
18. Demolition plans outlining protective measures and responsibilities required under 29 CFR 1926, Subpart T.

C. Accident Reporting: Serious accidents such as those resulting in: treatment of an injury at a medical facility; response by emergency medical personnel; or damage to property other than that of the Contractor will be reported to the contracting officer's representative by telephone within twenty-four hours of the occurrence. A copy of each accident report, which the Contractor or subcontractors submit to their insurance carriers, shall be forwarded through the Contracting Officer's Technical Representative (COTR) to the Contracting Officer (CO) as soon as possible (in no event later than seven (7) calendar days after the occurrence). All accidents/losses shall be reported using AOC “Incident Investigation Report” (from AOC Safety Policy 9-4, available from the COTR) or other form that meets OSHA Standards, as required. Any incident involving fatality or permanent total disability, or property damage to the Government or other property amounting to $100,000 or more requires immediate notification of the AOC Safety and Occupational Health Branch (SOHB).

D. MSDSs: The Contractor shall provide copies of each MSDS, in accordance with 29 CFR 1910.1200 - *App E* and with AOC 52.223-1. One copy shall be provided to the COTR per Division 1 submittal requirements, and a second copy shall be kept in an MSDS binder on the job site.

E. Waste Disposal: The Contractor shall dispose of all wastes and provide all paperwork, including but not limited to, manifests and disposal certifications, in accordance with all federal, state, and local regulations. Asbestos waste shall be accompanied by an Asbestos Shipment Record. The AOC shall sign manifests, certifications, and shipping records for lead, asbestos, and PCB wastes generated from this contract.

F. Hot Work Permits: When coordinating with the AOC’s jurisdiction Superintendent for hot work, submit AOC designated “Hot Work Permit” (from AOC Safety Policy 10-14, available from the COTR) or other form that meets OSHA Standards, as required.

G. Worker Certifications: The Contractor shall provide copies of all worker certifications for handling Hazardous Materials, Working in Confined Spaces, and other certifications required by OSHA, EPA, and local regulatory agencies (not required by other technical sections in the Project Manual).

H. Scaffolding: All scaffolding that is erected on this job will be erected in accordance with the requirements of 29 CFR 1926, Subpart L -- *Scaffolds*. Per OSHA Standards, a scaffold erection plan will be developed by the Contractor, certified by an engineer (licensed in the District of Columba, Virginia, or Maryland) and provided to the CO prior to set up. Once in place, the Contractor's assigned safety officer shall inspect and document the conditions of the scaffold and scaffold anchor points prior to use, and once per shift thereafter. Any observed failures in the scaffold shall render it unusable until the condition is rectified and re-inspected. Weekly scaffold inspection reports shall be provided to the designated COTR for inclusion in the contract records.

1. Other Means of Access: Should the Contractor employ other means of access to the work area, they shall be utilized in accordance with the requirements of 29 CFR 1926, Subpart N -- *Cranes, Derricks, Hoists, Elevators, and Conveyors.* The Contractor shall submit a plan for use of such equipment, fully coordinated with any other plans for site facilities (i.e., scaffolding, staging, etc.).
2. Scaffolding constructed by the Contractor for use by AOC employees shall also comply with 29 CFR 1910.

PART 2 - PRODUCTS

2.1 MATERIALS AND EQUIPMENT:

A. Special facilities, devices, equipment, clothing, and similar items used by the Contractor in the execution of work shall comply with all applicable regulations. Such materials and equipment shall be identified in the Plan of Action called for herein.

2.2 MATERIAL SAFETY DATA SHEETS (MSDSs):

A. MSDSs shall be available on-site for all products used under this contract. The prime contractor is responsible for meeting the hazard communication requirements, in accordance with 29 CFR 1910.1200. To the extent feasible, non-flammable and non-toxic products shall be used.

PART 3 - EXECUTION

3.1 CAUTIONARY PROCEDURES AT EXISTING VAULTS:

A. General: Transformer vaults may have floors which are PCB contaminated. These vaults are generally marked by blue signs, which identify the vault as PCB-contaminated; assure all vaults are marked with blue signs prior to proceeding with Work. On rare occasions, vault doors in existing buildings may be equipped with protective alarms and devices. Consult the AOC COTR to ascertain whether vault doors in areas under this contract are so equipped and have proper approved signage systems.

3.2 HAZARDOUS MATERIALS:

A. General: The Contractor shall bring to the COTR's attention, any material suspected of being hazardous which he/she encounters during execution of the work. The COTR shall then determine whether the Contractor shall perform tests to determine the nature or toxicity of the material. If the COTR directs the Contractor to perform tests, and/or if the material is found to be hazardous and additional protective measures are needed, a change to the contract may be required (subject to the "AOC Official Procedure for Making Changes to Contracts"). Persons conducting sampling testing and laboratories processing samples shall be certified.

3.3 CONFINED SPACES:

A. Confined Spaces: It is the responsibility of the AOC to identify and demarcate all known confined spaces within our facilities. It is the Contractor's responsibility to notify and coordinate with the Superintendent's Office when confined space work is to be done, obtain permission from this office to enter the space, conduct all required testing of space prior to entry, and complete an entry permit as required by OSHA regulations and the Confined Space Program previously submitted to the AOC COTR for the project.

3.4 PROTECTION:

A. Contractor Responsibility: The Contractor shall take all necessary precautions to prevent injury to the public, building occupants and visitors, and damage to or contamination of property or the environment. For the purposes of this contract, the public or building occupants shall include all persons not employed by the Contractor or subcontractor thereof.

B. Welding, Cutting, and Brazing: The AOC specifically requires a permit for welding, cutting, and brazing. This AOC "Hot Work Permit" shall be approved each day by the AOC Superintendent's Safety Specialist, or his/her designee, and coordinated through the Superintendent's Office whenever welding, cutting or any open flame work is performed. Work areas shall be kept clear of combustibles within a 35-foot radius of any hot work. Combustibles which cannot be removed shall be covered with flame-resistant blankets. Compressed gas cylinders shall be secured in a vertical position and stored in accordance with Compressed Gas Association (GSA) Guidelines at all times. Valve protection caps shall be in place whenever cylinders are not in use, moved or stored. Appropriate fire extinguishers shall be maintained at welding and cutting operations. A designated fire watch shall sign and return the permit. The fire watch shall be on duty during operations and for a minimum of 30 minutes after completion of welding or cutting operations to ensure no possibility of fire exists.

1. Provide adequate ventilation to protect employees from fume or gas exposure.
2. During arc welding activities erect screens to shield activities.

C. Storage: It is prohibited to store, position, or use equipment, tools, materials, scraps, and trash in a manner likely to present a hazard to the public or building occupants by its accidental shifting, ignition, or other hazardous qualities. Storing of combustible or flammable liquids shall be in accordance with the current edition of the National Fire Code for Flammable and Combustible Materials (NFPA 30). Compressed gases shall be stored in accordance with Compressed Gas Association (CGA) guidelines.

D. Obstructions: No corridor, aisle, stairway, door, or exit shall be obstructed or used in such a manner as to encroach upon routes of ingress or egress utilized by the public or building occupants, or to present an unsafe or unhealthy condition to the public or building occupants.

E. Housekeeping: Housekeeping practices shall be in conformance with OSHA 29 CFR 1910.22, 29 CFR 1910.141, 29 CFR 1910.1001, 29 CFR 1910.1025, 29 CFR 1926.25, 29 CFR 1926.62, and 29 CFR 1926.1101, for non-construction and construction contracts respectively.

F. Protection of the Public and Federal Employees: Work shall not be performed in any area occupied by the public or Federal employees unless the Contractor takes adequate steps for the protection of the public and Federal employees, and work is specifically permitted by the contract/COTR/jurisdiction Superintendent. Comply with requirements of ANSI A10.34.2001.

G. Electrical Systems: In addition to complying with the referenced standards in this Section, refer to Division 1 requirements for "Temporary Facilities and Controls." Provide compliant electrical supply, overload/ground fault protection, lighting, and signage/notification systems. Ensure that arrangements and installations accommodate the Architect's lockout/tagout procedures.

H. Mechanical Systems: Mechanical systems and equipment, and the components thereof, will be arranged and installed to provide ready accessibility and ease of lock/tag application during lockout/tagout procedures for AOC employees, post construction.

I. Fences & Barricades: The work area shall be fenced, barricaded, or otherwise segregated from the public or building occupants to prevent unauthorized entry into the work area. Fence elements shall be installed in such a manner as to overcome the negative or hazardous effects of wind and weather typical to the region. The use of barbed wire is prohibited unless requested in writing by the Architect.

J. Pedestrian Access Ways: All interior and exterior paths of travel established for pedestrian circulation within and around a construction site shall meet the requirements of 28 CFR Part 36 (*ADAAG*), Appendix A (Standards for Accessible Design), Articles 4.3 through 4.5; when a path is changed to accommodate work, the Contractor shall also provide directional signage in accordance with the Manual on Uniform Traffic Control Devices (MUTCD), 2003. All paths shall be maintained clear and level, without obstruction. Any proposed exceptions to these requirement must be approved in writing by the Architect prior to construction.

1. Lighting: All interior/exterior access ways, both permanent and temporary, shall be provided with a uniform minimum lighting level of 3 footcandles (fc) at the walking surface, in accordance with 29 CFR 1926.56(a), Table D-3 - *Minimum Illumination Intensities in Foot-Candles*.

K. Alternate Precautions: When the nature of the work prevents isolation of the work area and the public or building occupants may be in or pass through, under or over the work area, alternate precautions such as the posting of signs, warning lights, the use of signal persons, the erection of barricades or similar controls around particularly hazardous operations shall be approved and used.

L. Work Over Thoroughfares: When work is to be performed over a public thoroughfare such as a sidewalk, lobby, or corridor, the thoroughfare shall be closed, if possible, or other precautions taken such as the installation of screens or barricades. When exposure to falling objects exists, as during the erection of building walls or during demolition, special protection of the type detailed in 29 CFR 1910/1926 shall be provided.

M. Temporary Construction Barriers: Temporary construction barriers, partitions which cover a hole in a rated fire wall, protect occupants from noise or vibration, or separate the construction from public access and exit corridors shall be erected floor-to-ceiling, wall-to-wall, and shall remain in place for the duration of the contract. The minimum construction standards for these temporary barriers shall be metal studs, anchored top and bottom at a maximum spacing of 16 inches (406 mm) on-center, and covered with a minimum of one layer of ½-inch gypsum wallboard.

N. Dust and Fume Control Measures: Work performed adjacent to occupied areas shall be done within dust control barriers (generally constructed of polyethylene sheeting or other barriers as approved by the Architect). To the extent feasible, maintain the work environment at a negative pressure differential with the adjoining occupied areas. The use of fume and odor producing products and materials shall be done in such a manner, or at such a time as to minimize impact on building occupants. Provide measures to minimize migration of dust, fumes, gases, and similar affects into the adjacent areas. Ensure that adequate ventilation is provided to work areas in conformance with OSHA regulations.

O. Roof Work: During the performance of roofing work, employees will be protected as required by the OSHA standards contained in 29 CFR 1926 - subpart M “Fall Protection.” However, a safety monitoring system, as defined in 29 CFR 1926.502(h) is not an allowable option when working within six feet of the roofs edge or any opening. When working within six feet of the roof edge or an opening, the Contractor shall use a motion-stopping safety system(s), as defined in 29 CFR 1926.502(b through f); the selected system must be reviewed and approved by the Architect.

P. Removal of Fences and Barricades: Fences and barricades shall be removed upon completion of the project, in accordance with local ordinance and to the satisfaction of the Contracting Officer or his/her representative(s).

Q. Completion of Work: Do not create or leave hazards unabated (e.g., open or absent electrical panels, unmarked circuit breakers/fuses, faceplates missing from receptacles, open maholes, un-barricaded trenches/excavations, etc.).

END OF SECTION 01546

SECTION01732 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

A This Section includes the following:
1. Demolition and removal of selected portions of building or structure.

1.2 DEFINITIONS

A. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.

B. Remove and Salvage: Detach items from existing construction and deliver them to the Government ready for reuse.

C. Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated.

D. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.3 SUBMITTALS

A. Schedule of Selective Demolition Activities: Indicate detailed sequence of selective demolition and removal work, with starting and ending dates for each activity, interruption of utility services, use of elevator and stairs, and locations of temporary partitions and means of egress.

B. Predemolition Photographs or Videotapes: Show existing conditions of adjoining construction, including finish surfaces, that might be misconstrued as damage caused by selective demolition operations. Comply with Section 01000 - "General Requirements." Submit before Work begins.

C. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.
1. Comply with submittal requirements in Section 01000 - "General Requirements."

1.4 QUALITY ASSURANCE

A. Demolition Firm Qualifications: An experienced firm that has specialized in demolition work similar in material and extent to that indicated for this Project.

B. Refrigerant Recovery Technician Qualifications: Certified by an EPA-approved certification program.

C. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

D. Standards: Comply with ANSI A10.6 and NFPA 241.

E. Predemolition Conference: Conduct conference at Project site.

1.5 PROJECT CONDITIONS

A. The Government will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Government's operations will not be disrupted.

B. Conditions existing at time of inspection for bidding purpose will be maintained by Government as far as practical.

C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.

D. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.
   1. Hazardous materials will be removed by the Government before start of the Work, under a separate contract.
   2. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify the Architect. The Government will remove hazardous materials under a separate contract.

E. Storage or sale of removed items or materials on-site is not permitted.

F. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
   1. Maintain fire-protection facilities in service during selective demolition operations.

1.6 WARRANTY

A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials so as not to void existing warranties.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that utilities have been disconnected and capped.

B. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.

C. Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged.

D. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.

E. Engage a professional engineer to survey condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during selective demolition operations.

F. Survey of Existing Conditions: Record existing conditions by use of measured drawings, and/or preconstruction photographs.
   1. Comply with requirements specified in Section 01000 - "General Requirements."

G. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

A. Existing Services/Systems: Maintain services/systems indicated to remain and protect them against damage during selective demolition operations.

B. Service/System Requirements: Locate, identify, disconnect, and seal or cap off indicated utility services and mechanical/electrical systems serving areas to be selectively demolished.
   1. Arrange to shut off indicated utilities with utility companies.
   2. If services/systems are required to be removed, relocated, or abandoned, before proceeding with selective demolition provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.
   3. Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit after bypassing.

3.3 PREPARATION

A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
   1. Comply with requirements for access and protection specified in Section 01000 - "General Requirements."

B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.

C. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.

3.4 SELECTIVE DEMOLITION

A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
   1. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.

2. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
3. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain fire watch and portable fire-suppression devices during flame-cutting operations.
4. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
5. Dispose of demolished items and materials promptly. Comply with requirements in Section 01000 - "General Requirements."

B. Removed and Salvaged Items:
1. Clean salvaged items.
2. Pack or crate items after cleaning. Identify contents of containers.
3. Store items in a secure area until delivery to the Government.
4. Transport items to the Government's storage area designated by the Architect.
5. Protect items from damage during transport and storage.

C. Removed and Reinstalled Items:
1. Clean and repair items to functional condition adequate for intended reuse. Paint equipment to match new equipment.
2. Pack or crate items after cleaning and repairing. Identify contents of containers.
3. Protect items from damage during transport and storage.
4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.

D. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

A. General: Except for items or materials indicated to be recycled, reused, salvaged, reinstalled, or otherwise indicated to remain the Government's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.
1. Comply with requirements specified in Section 01000 - "General Requirements."

B. Burning: Do not burn demolished materials.

C. Disposal: Transport demolished materials off Government's property and legally dispose of them.

3.6 CLEANING

A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 01732

SECTION 03301 - CAST-IN-PLACE CONCRETE (LIMITED APPLICATIONS)

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section specifies cast-in-place concrete, including reinforcement, concrete materials, mixture design, placement procedures, and finishes, for noncritical applications of concrete and for projects using small quantities of concrete.
   1. Concrete pad base for manlift.

B. Related Sections include the following:
   1. Division 7 Section "Roofing Maintenance and Repair-in-Place Architectural Concrete" for general building applications of specially finished formed concrete.

1.3 SUBMITTALS

A. General: In addition to the following, comply with submittal requirements in ACI 301.

B. Product Data: For each type of product indicated.

1.4 QUALITY ASSURANCE

A. Source Limitations: Obtain each type of cement of the same brand from the same manufacturer's plant, obtain aggregate from one source, and obtain admixtures through one source from a single manufacturer.

B. Comply with ACI 301, "Specification for Structural Concrete."

C. Comply with ACI 117, "Specifications for Tolerances for Concrete Construction and

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to Project site in manufacturer's original and unopened containers, labeled with type and name of products and manufacturers.

B. Comply with manufacturer's written instructions for minimum and maximum temperature requirements and other conditions for storage.

C. Store cementitious materials off the ground, under cover, and in a dry location.

PART 2 - PRODUCTS

2.1 FORMWORK

A. Furnish formwork and formwork accessories according to ACI 301.

2.2 STEEL REINFORCEMENT

A. Reinforcing Bars: ASTM A 615/A 615M, Grade 40, deformed.

2.3 CONCRETE MATERIALS

A. Cementitious Material: Use the following cementitious materials, of the same type, brand, and source throughout Project:
   1. Portland Cement: ASTM C 150, Type I/II.

B. Normal-Weight Aggregate: ASTM C 33, graded, ¾-inch nominal maximum aggregate size.

C. Water: ASTM C 94/C 94M; potable.

2.4 ADMIXTURES

A. Air-Entraining Admixture: ASTM C 260.

2.5 CURING MATERIALS

A. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. when dry.

B. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.

C. Water: Potable.

2.6 CONCRETE MIXTURES

A. Comply with ACI 301 requirements for concrete mixtures.

B. Normal-Weight Concrete: Prepare design mixes, proportioned according to ACI 301, as follows:
   1. Minimum Compressive Strength: 4000 psi at 28 days.
   2. Maximum Water-Cementitious Materials Ratio: 0.45.
   3. Slump Limit: 3 inches, plus or minus 1 inch.
   4. Air Content: 6% + 1%.

2.7 PREPACKAGED CONCRETE:

A. Packaged dry mix concrete or mortar (as applicable) complying with ASTM C 387, Normal Weight Concrete, Minimum Compressive Strength: 4,000 psi, Air Entrained with Air Content 6% ± 1%.

B. Mix prepackaged concrete materials in accordance with manufacturer's written instructions.

2.8 CONCRETE MIXING

A. Project-Site Mixing: Measure, batch, and mix concrete materials and concrete according to ASTM C 94/C 94M. Mix concrete materials in appropriate drum-type batch machine mixer.
1. For mixer capacity of 1 cu. yd. or smaller, continue mixing at least 1-1/2 minutes, but not more than 5 minutes after ingredients are in mixer, before any part of batch is released.

PART 3 - EXECUTION

3.1 FORMWORK

A. Design, construct, erect, brace, and maintain formwork according to ACI 301.

3.2 STEEL REINFORCEMENT

A. Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.

3.3 EMBEDDED ITEMS

A. Coordinate installation of embedded or post- installed stud anchors for attaching lift base to concrete support slab.

3.4 CONCRETE PLACEMENT

A. Comply with ACI 301 for measuring, batching, mixing, transporting, and placing concrete.

B. Do not add water to concrete during delivery, at Project site, or during placement.

C. Consolidate concrete with mechanical vibrating equipment.

3.5 FINISHING

A. Finish all formed surfaces with smooth finish. Repair and patch tie holes and defective areas and apply .rubbed finish defined in ACI 301.

B. Screed surfaces with a straightedge and strike off. Begin initial floating using bull floats or darbies to form a uniform and open-textured surface plane before excess moisture or bleedwater appears on surface.
1. Do not further disturb surfaces before starting finishing operations.

C. Trowel Finish: Apply a hard trowel finish to surfaces indicated and to floor and slab surfaces exposed to view or to be covered with resilient flooring, carpet, ceramic or quarry tile set over a cleavage membrane, paint, or another thin film-finish coating system.

3.6 CONCRETE PROTECTING AND CURING

A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and with ACI 301 for hot-weather protection during curing.

B. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.

C. Curing Methods: Cure formed and unformed concrete for at least seven days by one or a combination of the following methods:
   1. Moisture Curing: Keep surfaces continuously moist for not less than seven days with the following materials:
      a. Water.
      b. Absorptive cover, water saturated and kept continuously wet. Cover concrete surfaces and edges with 12-inch lap over adjacent absorptive covers.
   2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches and sealed by waterproof tape or adhesive. Cure for not less than seven days. Immediately repair any holes or tears during curing period using cover material and waterproof tape.

3.7 REPAIRS

A. Remove and replace concrete that does not comply with requirements in this Section.

END OF SECTION 03301

SECTION 05500 - METAL FABRICATIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following:
   1. Steel framing and hardware for horizontal life line anchors.

1.3 SUBMITTALS

A. Shop Drawings: Detail fabrication and erection of each metal fabrication indicated. Include plans, elevations, sections, and details of metal fabrications and their connections. Show anchorage and accessory items.
   1. Provide templates for anchors and bolts specified for installation under this and other Sections.

B. Submittals:
   1. Product Data for all materials specified in this Section.
   2. One complete, full size sample of each typical assembly.
   3. Two samples of each attachment.

C. Mill Certificates: Signed by manufacturers of stainless steel and galvanized plates, shapes, and hardware certifying that products furnished comply with requirements.

D. Welding Certificates: Copies of certificates for welding procedures and personnel.

E. Qualification Data: For firms and persons specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and Governments, and other information specified.

1.4 QUALITY ASSURANCE

A. Fabricator Qualifications: A firm experienced in producing metal fabrications similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

B. Welding: Qualify procedures and personnel according to the following:
   1. AWS D1.1, "Structural Welding Code-Steel."
   2. AWS D1.3, "Structural Welding Code-Sheet Steel."
   3. AWS D1.6, "Structural Welding Code-Stainless Steel."
   4. Certify that each welder has satisfactorily passed AWS qualification tests for welding processes involved and, if pertinent, has undergone recertification.

1.5 PROJECT CONDITIONS

A. Field Measurements: Where metal fabrications are indicated to fit walls and other construction, verify dimensions by field measurements before fabrication and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

1.6 COORDINATION

A. Coordinate installation of anchorages for metal fabrications. Furnish setting drawings, templates, and directions for installing anchorages, including anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.

PART 2 - PRODUCTS

2.1 METALS, GENERAL

A. Metal Surfaces, General: For metal fabrications exposed to view in the completed Work, provide materials with smooth, flat surfaces without blemishes. Do not use materials with exposed pitting, seam marks, roller marks, rolled trade names, or roughness.

2.2 METALS

A. Stainless-Steel Plate, Shapes and Tubing: ASTM A 276, Type 304L.

2.3 FASTENERS

A. General: Provide type 304 or 316 stainless-steel fasteners for exterior use. Select fasteners for type, grade, and class required.

B. Bolts and Nuts: Regular hexagon-head bolts, Type 304 or 316 stainless steel, conforming to ASTM F594.

C. Threaded Rod: Type 304 or 316 stainless steel, 5/8" diameter, conforming to ASTM F593, condition CW.

D. Plain Washers: Shall meet dimensional requirements of ANSI B 18.22.1, Type A plain.

E. Lock Washers: Helical, spring type, ASME B18.21.1

F. Epoxy Anchors: Threaded rod anchors designed to be drilled and epoxied into concrete and masonry substrate. The fasteners shall have the following minimum structural properties.
   1. Epoxy Adhesive: Two component, structural grade epoxy material which meets the requirements of ASTM C-881 Types I, II, IV, and V, Grade 3, Class B and C. Epoxy shall be capable of sustaining a minimum ultimate tension load capacity of 8,520 pounds when installed in concrete having compressive strength of 2000 psi. Maximum recommended curing time at 68 degrees shall be 45 minutes. (PowerFast System by Power Fastening Inc. or equal)
   2. Threaded Rod: ASTM F593/A151 304 (Stainless Steel)

3. Nuts: ASTM F593/AISI 304 (Stainless Steel)
4. Washers: ANSI B 18.22.1, Type A plain (Stainless Steel)
5. Lock Washers: Helical, spring type, ASME B18.21.1
6. Factor of Safety: 4:1
7. Anchors shall be installed in strict compliance with manufacturer's recommendations.

2.4 NEOPRENE PAD

A. A ¼" thick hard neoprene pad shall be provided as indicated. Neoprene pads shall be one piece bridge bearing quantity with Type "W" or kerfed to provide full contact upon compression by seating of anchor plate. Size shall be ¼" less than the stainless steel anchor plate on all sides such that when installed a reveal is provided at the perimeter of the pad to receive sealant bead.

2.5 FABRICATION, GENERAL

A. Shop Assembly: Preassemble items in shop to greatest extend possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Use connections that maintain structural value of joined pieces. Clearly mark units for reassembly and coordinate installation.

B. Shear and punch metals cleanly and accurately. Remove burrs.

C. Ease exposed edges to a radius of approximately 1/32 inch, unless otherwise indicated. Form bent-metal corners to smallest radius possible without causing grain separation or otherwise impairing work.

D. Weld corners and seams continuously to comply with the following:
1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
2. Obtain fusion without undercut or overlap.
3. Remove welding flux immediately.
4. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.

E. Provide for anchorage of type indicated; coordinate with supporting structure. Fabricate and space anchoring devices to secure metal fabrications rigidly in place and to support indicated loads.

F. Cut, reinforce, drill and tap metal fabrications as indicated to receive finish hardware, screws, and similar items.

G. Form exposed work true to line and level with accurate angles and surfaces and strait sharp edges.

H. Remove sharp or rough areas on exposed traffic surfaces

2.6 ANCHOR PLATES

A. Provide anchor plates as indicated. Drill plates to receive anchor bolts.

B. Provide type 304 or 316 stainless-steel plates for exterior use.

2.7 MISCELLANEOUS FRAMING AND SUPPORTS

A. General: Provide steel framing and supports that are not part of structural steel framework as necessary to complete the Work.

B. Fabricate units from structural steel shapes, plates, and bars of welded construction, unless otherwise indicated. Fabricate to sizes, shapes, and profiles indicated and as necessary to receive adjacent construction retained by framing and supports. Cut, drill, and tap units to receive hardware, hangers, and similar items.

2.8 FINISHES, GENERAL

A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

B. Finish metal fabrications after assembly.

2.9 STAINLESS STEEL FINISHES

A. Remove tool and dye marks and stretch lines or blend into finish

B. Finish: Mill finish for framing and fabricated shapes. (Fasteners, nuts, and bolts may be manufacturer's standard finish).

C. When polishing is completed, passivate and rinse surfaces. Remove embedded foreign matter and leave surfaces chemically clean.

2.10 GROUT

A. Nonshrink, Nonmetallic Grout: Factory-packed, nonstaining, noncorrosive group complying with ASTM C 1107 and CRD-621-92. Grout shall obtain 28 day compression strength of 10,000 psi when tested in accordance with ASTM C109. Provide group specifically recommended by manufacturer for exterior applications.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Fastening to In-Place Construction: Provide anchorage devices and fasteners where necessary for securing metal fabrications to in-place construction.

B. Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required for installing metal fabrications. Set metal fabrications accurately in location, alignment, and elevation; with

edges and surfaces level, plumb, true, and free of rack; as measured from established lines and levels.

C. Provide temporary bracing or anchors in formwork for items that are to be built into concrete, masonry, or similar construction.

D. Fit exposed connections accurately together to form hairline joints. Wled connections that are not to be left as exposed joints but cannon be shop welded because of shipping size limitations. Do not weld, cut, or abrade surfaces of exterior units that have been hot-dip galvanized after fabrication and are for bolted or screwed field connections.

E. Field Welding: Comply with the following requirements:
1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
2. Obtain fusion without undercut or overlap.
3. Remove welding flux immediately.
4. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.
5. Maintain 24 hour day fire watch during welding operations. Fire watch shall continue for 24 hours after welding operations have concluded.

3.2 SETTING ANCHOR PLATES

A. Clean bearing surfaces of bond-reducing materials and roughen to improve bond to surfaces. Clean bottom surface of plates.

B. Set Anchor and Plates as shown:
1. Pre-drill concrete or masonry to required depth and install epoxy anchor bolts.
2. Where anchor and plate assemblies are attached to bare concrete or masonry surfaces, butter both surfaces of neoprene pad with compatible sealant. Set neoprene pad in place and install stainless steel anchor plate.
3. Seal all bolt holes with compatible sealant prior to washer and nut installation. Snug bolts tightly to plates as specified by AISC and to ensure that no voids remain between neoprene pad, plate, and bearing surfaces.

3.3 INSTALLING MISCELLANEOUS FRAMING AND SUPPORTS

A. General: Install framing and supports to comply with requirements of items being supported, including manufacturer's written instructions and requirements indicated on Shop Drawings, if any.
1. Pack grout solidly between tubing and stonework so as to ensure no voids remain.

END OF SECTION 05500

SECTION 07500 - ROOFING SYSTEM REPAIRS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following:
   1. Removal and resetting of terra cotta tile roofing.
   2. Patching copper roofing system.
   3. Cutting and patching gravel surfaced built-up roofing system.

B. Related Sections include the following:
   1. Section 05500 - "Steel Fabrication" for items to be flashed by roofing repairs.
   2. Section 13912 - "Fall Protection Safety System" for items to be flashed by roofing repairs.

1.3 PERFORMANCE REQUIREMENTS

A. General: Perform work to maintain all systems in a watertight condition at all times. Restore work areas to a watertight condition daily.

B. Material Compatibility: Provide roofing materials that are compatible with one another under conditions of service and application required.

1.4 SUBMITTALS

A. Product Data: For each type of product indicated.

1.5 QUALITY ASSURANCE

A. Source Limitations: Obtain components for repair of various roofing systems from as single source.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver roofing materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, and directions for storage.

B. Store liquid materials in their original undamaged containers in a clean, dry, protected location and within the temperature range required by roofing system manufacturer. Protect stored liquid material from direct sunlight.
   1. Discard and legally dispose of liquid material that cannot be applied within its stated shelf life.

C. Protect roof insulation materials from physical damage and from deterioration by sunlight, moisture, soiling, and other sources. Store in a dry location. Comply with insulation manufacturer's written instructions for handling, storing, and protecting during installation.

1.7 PROJECT CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit roofing system to be installed according to manufacturer's written instructions and warranty requirements.

PART 2 - PRODUCTS

2.1 ROOFING MAINTENANCE AND REPAIR MATERIALS - BUILT-UP ROOFING

A. Roofing Membrane Sheet: ASTM D 6162, Grade S, Type I or II, composite polyester- and glass-fiber-reinforced, SBS-modified asphalt sheet; smooth surfaced; suitable for application method specified.

B. Roofing Membrane Cap Sheet: ASTM D 6162, Grade G, Type I or II, composite polyester- and glass-fiber-reinforced, SBS-modified asphalt sheet; granular surfaced; suitable for application method specified. Color: White.

C. Asphalt Primer: ASTM D 41.

D. Cold-Applied Adhesive: Roofing system manufacturer's standard asphalt-based, one- or two-part, asbestos-free, cold-applied adhesive specially formulated for compatibility and use with roofing membrane and base flashings.

E. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required by roofing system manufacturer for application.

F. Fabric (roofing-cotton): ASTM D 173, asphalt saturated cotton fabric, 3.5 ounces per square yard.

G. Insulation (perlite): ASTM C 728, perlite insulation (Celotherm by Celotex; Gaftemp by GAF; Fesco board by Manville). Thickness as required.

H. Pourable Sealer: Two component polyurethane (Sure-Seal Pourable Sealer by Carlisle or equal).

2.2 ROOFING MAINTENANCE AND REPAIR MATERIALS - TILE & METAL ROOFING

A. Band Clamp: 1/2 inch wide band with slotted worm drive mechanism. All components stainless steel

B. Grout: ASTM C 476, 1 part portland cement, 1/10 part hydrated lime, sand 2 1/4 to 3 times the sum of the volumes of the cementitious materials with sufficient water to make a smooth paste. For applications associated with roofing or waterproofing, use latex additive to reduce set time to a maximum of 2 hours. Prepackaged materials will be considered for substitution if Contractor provides Engineer with data sheets and mix design.

C. Copper: ASTM B 152, C110 cold rolled, tempered, 16 ounce.

D. Lead: 4 pound lead sheet. Cut to size for use as washers.

E. Lead-Coated Copper: ASTM B 101, Type I, Class A, coated one side except coated both sides where both exposed, cold-rolled unless soft temper required for forming and performance; 20-oz. sheet before coating.

F. Sealant (silicone): ASTM C 920, Type S, Grade NS, Class 25, one component gun-grade, low modulus silicone sealant (790 by Dow Corning; Omniseal by Sonneborn; Spectrem 1 by Tremco). Color selected by Owner from manufacturer standard colors.

G. Copper Wire:

H. Bronze Nuts and Bolts:

I. Solder: ASTM B 32, 50-50 percent block tin and pig lead (minimum) solder. Use rosin flux. Use 3 pound irons. [Do not use torches or welding (for metal roofs).]

J. Rubberized Asphalt Sheet Membrane Underlayment: Self adhering rubberized asphalt bonded to polyethylene sheeting and formed into flexible sheets, 56 mils minimum thickness (Bituthene 3000/3100 by W.R. Grace and Co.; Mirifi 861 by Mirafi, or equal). Use primers, mastics and liquid membrane supplied by membrane manufacturer.

PART 3 - EXECUTION

3.1 DEMOLITION

A. Built-up Roofs:
1. At location of proposed lifeline anchors at existing flat roofs, mark location for anchors. Carefully spud surface of membrane out 15 inches minimum beyond proposed base plate installation. Remove gravel and flood coat debris from roof.
2. Cut existing roofing and insulation as required to install base plate. Expose concrete roof deck surface.

B. Tile Roofs:
1. Carefully remove loose set terra cotta ridge tile and store for reinstallation.
2. Carefully lift cover tiles along pan tiles to be removed. Cover tile are connected to the bronze bar sleepers with a ¼-inch diameter copper wire that spans approximately 30 inches from the cover tile head to the next higher horizontal bronze bar sleeper. Lay cover tile to side and protect.
3. Starting at ridge, loosen two bronze bolts securing head of pan tile to horizontal bronze z-bar sleeper. Salvage nuts and bolts. Clean and store for reuse. Remove and store pan tile. Clean prior to reinstallation with warm water. Repeat removal process for pan tiles until tile at proposed lifeline anchor is removed.
4. After marking location of proposed anchors, cut copper roofing and lightweight fill down to surface of concrete roof deck. Legally dispose of removed material offsite.

C. Clean substrate of dust, debris, moisture, and other substances detrimental to roofing installation according to roofing system manufacturer's written instructions. Remove sharp projections.

D. Prevent materials from entering and clogging roof drains and conductors and from spilling or migrating onto surfaces of other construction. Remove roof-drain plugs when no work is taking place or when rain is forecast.

3.2 BUILT-UP ROOFING REPAIR

A. After lifeline anchor installation, fill area around post up level with existing roofing system with rigid insulation. Shave surface as required to provide smooth transition at top surface and full bearing at bottom surface.

B. Fabricate pitch pan from 16-ounce copper. Provide roof flange as indicated and ½-inch hemmed top edge (folded inward). Solder all seams water tight, including roof flange. Set pitch pan on primed roofing membrane surface in full bed of roofing cement.
   1. Fill bottom 2-inch depth of pitch pan solid with grout.
   2. Mix pourable sealer and pour into pitch pan. Overfill and slope top surface to drain with outer edge meeting at top of hemmed edge of vertical pitch pan wall.

C. Strip flanges of pitch pan to primed roofing membrane with two-ply modified bitumen membrane patch set in cold-applied adhesive. Seal all edges and seams with manufacturers recommended sealant/mastic.

3.3 TILE AND METAL ROOF REPAIRS

A. After lifeline anchors are set, fill area surrounding base plate with grout. Slope top surface of grout to provide smooth transition over top of base plate anchor up to round post penetration.

B. Prime surface of existing 1-ply felt and hot-asphalt waterproofing membrane. Install rubberized asphalt sheet membrane underlayment extending from existing 1-ply membrane to and ujp lifeline anchor post as indicated on the Drawings. Provide fillet of membrane at vertical-to-horizontal corners (base of post) , and seal all non-factory edges and seams with manufacturer's mastic.

C. Cover rubberized asphalt sheet installation with two layers of 15 pound felt inserted between existing 1-ply underlayment and existing copper roofing.

D. Clean existing copper roofing out 3-inches beyond cut edge of copper to bright copper finish.
   1. Fabricate 16-ounce copper boot with flange that extends out onto existing copper roofing 2-inches at base of post. Solder all seams watertight.
   2. Set boot and flange over post and solder flange water tight to existing copper roofing.
   3. Secure top of boot to post with band clamp and seal top edge with silicone sealant.

E. Core drill or otherwise neatly cut hole in center of existing pan tile to fit over new lifeline support post and flashing. Reset tile and fasten to horizontal bronze z-bar with existing bronze nut and bolt. Cut and provide new lead washers.
   1. Fabricate pan tile cover from lead coated copper. Turn up edges as shown. Fabricate lead coated copper boot to fit around post, maximizing boot height, while maintaining and exposed portion of the post support for anchoring the umbrella flashing. Solder boot water tight to pan cover.

2. Fabricate umbrella flashing to fit snuggly to post support and to extend down to pan tile cover. Provide hemmed top edge to receive sealant and hemmed bottom edge with drip/kick.
3. Secure umbrella flashing with band clamp and seal top edge with silicone sealant.
4. Reset remainder of upslope pan tiles, securing with existing bronze nuts and bolts. Provide new lead washers at all locations.
5. Reset cover tiles and ridge tile.
6. Provide temporary weather protection from ridge down to cover areas of removed tile during period the tiles are not in place. Intent is to prevent excessive amounts of precipitation onto the otherwise well protected copper roofing below the terra cotta tiles.

3.4 PROTECTING AND CLEANING

A. Protect roofing system from damage and wear during remainder of construction period. When remaining construction will not affect or endanger roofing, inspect roofing for deterioration and damage, describing its nature and extent in a written report, with copies to Architect and Owner.

B. Correct deficiencies in or remove roofing system that does not comply with requirements, repair substrates, and repair or reinstall roofing system to a condition free of damage and deterioration at time of Substantial Completion and according to warranty requirements.

C. Clean overspray and spillage from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

END OF SECTION 07500

SECTION 13281 - ASBESTOS ABATEMENT PROCEDURES

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK:

A. **General:** This section includes required procedures necessary to reduce air concentrations of asbestos to the specified level and maintain the specified asbestos control limits that is mandated during the life of the contract. It also includes procedures for the encapsulation, removal, containment, and disposal of asbestos containing materials.

1. Work Area: See Contract Drawings.

2. The following asbestos containing materials are to be disturbed or encapsulated:

Material or Surface	Asbestos Identified?	Space or Area
Light Concrete, Gray	Yes	Peak South Low Roof: (T-4)
Concrete, Gray	Yes	East Patio Floor: (T-5)
Silver Paint	Yes	North Flat Roof: (T-8)

1.2 QUALITY ASSURANCE:

A. **Definitive Responsibility Criteria:**

1. **Qualifications For the Asbestos Abatement Contractor:**

a. **Asbestos Abatement Experience:** Provide the name and location of at least five (5) prior asbestos abatement projects, successfully performed by the selected Asbestos Abatement Contractor, that are comparable in scope of work, structure, project costs and in complexity. For each project include the name and current telephone number of the project's contract representative. Address how each project is comparable in scope of work, structure, project costs and complexity.

b. **Project Documents:** Provide copies of the daily logs and air monitoring reports including final clearance sample results, for the five abatement projects submitted in response to the preceding paragraph.

c. **Pollution Liability Insurance:** Submit proof of Pollution Liability Insurance coverage. If the completion date of the bid project is beyond the effective dates of the Pollution Liability Insurance coverage, then the selected contractor shall submit a statement stating it is understood, that this Pollution Liability Insurance coverage, shall remain in effect throughout the duration of this contract.

d. **Federal/State EPA and OSHA citations**: Provide a list all federal and State EPA or OSHA citations the Contractor has received in the last five (5) years.

2. **Qualifications for the Supervisor / Competent Person:** Provide the name and experience record of the proposed Supervisor/Competent Person and foreman, the selected Asbestos Abatement Contractor, will assign to this project. Provide evidence that the proposed Supervisor/Competent Person has supervised at least five (5) asbestos abatement contracts of comparable scope and complexity.

    a. **Accreditation:** Provide evidence that shows the proposed Supervisor/Competent Person, is accredited as an asbestos Contractor/Supervisor as described in 40 CFR Part 763 (EPA's Model Accreditation Plan).

3. **Qualifications for the Certified Industrial Hygienist (CIH):** Provide the name and experience record of the CIH selected to perform the duties outlined in "Project Certified Industrial Hygienist" below. Provide evidence showing that, in the last five years, the selected CIH has performed abatement oversight on projects of comparable scope and complexity.

    a. **Certification, Accreditation and Training:** Provide evidence that shows the selected CIH (1.) is certified in Comprehensive Practice by the American Board of Industrial Hygiene (ABIH) (2.) is currently accredited as an Asbestos Building Inspector, Contractor/Supervisor, and Project Designer as described in 40 CFR Part 763 (3.) has successfully completed the National Institute of Occupational Safety and Health (NIOSH) 582 course *Sampling and Evaluating Airborne Asbestos Dust* or equivalent (4.) is currently registered in the American Industrial Hygiene Association's (AIHA) *Asbestos Analytical Registry* (5.) is currently participating in their *Proficiency Analytical Testing* (PAT) certification program.
    b. **Errors and Omissions Insurance:** Provide evidence showing the Project CIH has Errors and Omissions Insurance coverage. If the completion date of the project is beyond the effective dates of the insurance coverage, submit documentation stating that the CIH(s) Errors and Omissions Insurance coverage will be kept current and in effect for the duration of the project.

4. **Qualifications for the Industrial Hygienist (IH):** Name of and experience record of the Industrial Hygienist(s) (IH) , the CIH selects, who are qualified by virtue of their training and work experiences, to perform duties assigned by the CIH. Show experience on 5 projects of comparable scope and complexity, that the IH has overseen in the last five years. Provide evidence that:

    a. The selected IH is currently Accredited as an asbestos building inspector, Contractor/Supervisor, and Project Designer as described in 40 CFR Part 763.
    b. The selected IH has successfully completed the NIOSH 582 course Sampling and Evaluating Airborne Asbestos Dust or equivalent and is currently registered in the American Industrial Hygiene Association's (AIHA) Asbestos Analytical Registry.
    c. The selected IH is currently participating in their (PAT) certification program.

5. **Testing Laboratory Qualifications:** Proof of qualifications of testing laboratory and personnel as follows:

a. **Accreditation:** Provide proof of accreditation by the AIHA for asbestos analysis, and the NIST under National Voluntary Laboratory Accreditation Program (NVLAP) for asbestos analysis.
b. **Proficiency:** Provide the two most recent consecutive quarterly reports showing the laboratory analyzing the samples has been judged proficient by successful participation in the NIOSH's PAT certification and Bulk Asbestos Proficiency Analytical Testing (ELPAT) programs.
c. **Laboratories and Microscopists:** Provide proof the laboratory(s) selected to analyze project samples is accredited by the American Industrial Hygiene Association (AIHA), holds appropriate state license and successful participation of the laboratory in the Proficiency Analytical Testing (PAT) Program. For microscopists to analyze fibers-in-air samples on site, provide proof that they have been judge by current inclusion on the AIHA Asbestos Analyst's Registry (AAR).
d. **Errors and Omissions Insurance:** Provide evidence showing the laboratory has Errors and Omissions Insurance coverage. If the completion date of the project is beyond the effective dates of the insurance coverage, submit documentation stating that the laboratory's Errors and Omissions Insurance coverage will be kept current and in effect for the duration of the project.

B. **Contractors performing** asbestos abatement work for the Architect of the Capitol in the District of Columbia are required to be licensed to do asbestos work in the District of Columbia. The Contractor shall comply with the licensing regulations of:

Government of the District of Columbia
Department of Consumer and Regulatory Affairs (DCA)
Environmental Regulation Administration
51 N Street NE
5th Floor
Washington, DC 20002

C. **Contractor employees** assigned to active asbestos work areas in the District of Columbia must be licensed by the District of Columbia as trained asbestos workers and supervisors. The Abatement Personnel shall have completed the EPA AHERA/OSHA abatement worker/supervisor course; have training on the standard operating procedures of the Abatement Contractor; have one year of asbestos abatement experience; have applicable medical and respiratory protection documentation; have certificate of training and State accreditation/license.

D. **Asbestos Control Limits:** The enclosed work areas shall be defined as a regulated area in accordance with 29 CFR 1910.1001 and 29 CFR 1926.1101.

1. **Inside Asbestos Work Area:** For personnel wearing negative-pressure respirators, air concentrations of asbestos shall not exceed an 8-hour time weighted average of 0.1 fibers (longer than 5 microns), per cubic centimeter of air as determined by the NIOSH 7400 method. Regardless of respiratory protection worn, air concentrations inside the work area will not exceed an 8-hour time weighted average of one (1) fiber per cubic centimeter as determined by the NIOSH 7400 method. In the event that this level is exceeded, all work in the asbestos work area shall stop and may not restart until fiber levels are below an 8-hour time weighted average of one (1) fiber per cubic centimeter as determined by the NIOSH 7400 method. It is the responsibility of the Contractor to provide an independent

industrial hygiene consultant to provide the required personal air monitoring and to assure that all safety and health procedures are followed.

2. **Outside Asbestos Work Area:** Air concentrations of asbestos shall not exceed 0.01 fibers (longer than 5 microns) per cubic centimeter of air as determined by the NIOSH 7400 method. This applies to all areas in the building while work is in progress, except for the asbestos work area. Anytime this level is exceeded, all work in the asbestos work area will be stopped and may not restart until approval from the AOC/SOHB is given. To assure compliance with this provision, the government may provide (in addition to the approved sampling plan), air monitoring outside the Contractor's work area. If used, the government's industrial hygienist will have unrestricted access to the Contractor's work site. If the asbestos abatement Contractor wishes, he may perform any additional air sampling to assure compliance and for comparison with this specification.

E. **Project Certified Industrial Hygienist (Project CIH):** The primary Contractor shall engage the services of a CIH certified in Comprehensive Practice by the American Board of Industrial Hygiene (ABIH) for the period of this contract. Selection of the Project CIH is subject to approval of the Architect. This person is responsible for all environmental oversight of this contract. Although contracted by the General Contractor, the Project CIH is responsive to the Architect. During the contract period, the Project CIH is required to be on call and to be on project site within two hours after notification by the Architect. Additionally, the Project CIH will arrange for another Architect approved CIH, to be a back-up, to cover duties assigned under this specification, in the event that the selected Project CIH is not able to be on site as required or cannot report to the project site within the allotted 2 hours. Responsibilities for the Project CIH include but shall not be limited to the following:

1. **Coordination meeting.** Immediately after selection the Project CIH will contact the Architect to schedule a coordination meeting. Suggested attendees to this meeting are: the AOC Construction Manager, a representative of the AOC/SOHB, and a representative of the AOC jurisdiction where the work is being performed. The purpose of this coordination meeting is to establish a clear working knowledge of the project and the responsibilities of the Project CIH with the Architect's staff.
2. **Certify**, that prior to beginning any abatement activity, all personnel is trained in accordance with OSHA 29 CFR 1926.1101 (k)(9) and any additional State/Local requirements. Training must include, at a minimum, the elements listed at 29 CFR 1926.1101 (k)(9)(viii). Training shall have been conducted by a third party, EPA/State approved trainer meeting the requirements of EPA 40 CFR 763 Appendix C (AHERA MAP). Provide copies of the initial training certificates and all refresher taken to date.
3. **Certify** that medical examinations meeting the requirements of 29 CFR 1926.1101 (m) are provided for all personnel working in the regulated area, regardless of exposure levels. The physician's written opinion as required by 29 CFR 1926.1101 (m)(4) shall be provided for each person and shall include in the opinion the person has been evaluated for working in a heat stress environment while wearing personal protective equipment and is able to perform the work.
4. **Review,** approve and submit for review to the Architect:

    a. **All asbestos abatement plans** of action for conformance to applicable referenced standards and this specification.

b. **All submittals** (except initial submittal of contractor qualification information) the Contractor submits under paragraph 1.4.
c. **All sampling data** within the time frames outlined in this specification.

5. **Review,** approve and submit to the Architect for review all required Material Safety Data Sheets (MSDS) submitted by the Contractor.
6. **Inspect and or oversee** the inspection of, asbestos abatement removal work for conformance with the approved plan.
7. **Develop and submit** for review a daily monitoring plan to test airborne levels of asbestos to determine exposure levels. The plan will include all personal, area, and final air samples to be used to clear a containment area.
8. **Perform daily monitoring** in accordance with the approved plan.
9. **Ensure all work** is performed in strict accordance with this specification at all times.
10. **Ensure hazardous exposure** to personnel and to the environment are adequately controlled at all times.
11. **The Project CIH shall visually inspect** and approve all asbestos containment areas before asbestos containing materials are removed and before performing any final air tests.
12. **At the direction** of the AOC/SOHB, the Project CIH shall investigate possible contaminations and contamination related complaints. The Project CIH, shall perform any necessary sampling and/or site investigations in order to develop findings and conclusions of the reported incidence. Submit a verbal report that outlines all findings of the investigation to the AOC/SOHB within 24 hours of the initial notice. Submit a final written report to the AOC/SOHB within 3 work days of the initial notice.
13. **With the approval of the Architect the Project CIH** may select IH (s) to perform duties assigned by the Project CIH. The selected IH (s) shall be under the direct supervision of the Project CIH, who will be responsible for IH(s) job performance, and will review and approve all results of their work. The selection of IH (s) shall be based on their training and work experiences and will be subject to the approval of the Architect.
14. **PPE:** Establish the Personal Protective Equipment (PPE) daily.

F. **Project Competent Person**: The abatement contractor shall assign a competent person as defined in 29 CFR 1926.1101, as a person who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure, and who has the authority to take prompt corrective measures to eliminate them. This person shall meet the criteria outlined in paragraph 1.2.A.2, of this specification and is required to be on site supervising the work. Responsibilities for the Project Competent Person include but shall not be limited to the following:

1. Comply with the requirements outlined in 29 CFR 1926.1101, paragraph (o) *Competent Person.*
2. Follow the requirements outlined by the Project CIH.
3. Limit access to the abatement area by permitting only authorized personnel and personnel listed in “Access to Work Area” below to enter.
4. No employee shall be allowed to wear a respirator unless a physician has determined they are capable of doing so and has issued a written opinion for that person.
5. All personnel wearing respirators shall have a current qualitative/quantitative fit test which was conducted in accordance with 29 CFR 1910.134 (f) and Appendix A. Fit tests shall be done for PAPRs with the blower off.

6. The Competent Person shall assure that the positive/negative fit check is done each time the respirator is donned by an employee. Head coverings must cover respirator head straps. Any situation that prevents an effective face piece to face seal as evidenced by failure of a fit check shall preclude that person from wearing a respirator until resolution of the problem.
7. Maintain a daily log of all persons who enter and exit the work area until the containment is authorized for removal.
8. Working with the project CIH, ensure that all documents are filed in the final report due three days after the containment is authorized for removal.
9. Ensure that only personnel with current EPA accreditation and DC asbestos license, perform abatement work in the work area.

1.3 **REFERENCES:**

A. **American National Standards Institute (ANSI) Publication:**

1. Z9.2-79 - Fundamentals Governing the Design and Operation of Local Exhaust Systems

B. **American Society for Testing and Materials (ASTM) Publication:**

1. E 849-82 - Safety and Health Requirements relating to Occupational Exposure to Asbestos

C. **Code of Federal Regulations (CFR):**

1. 29 CFR 1910.1001, Occupational Safety and Health Act (OSHA), INCLUDING Appendix A through I.
2. 29 CFR 1910.20, Subpart C, General Safety and Health Provisions.
3. 29 CFR 1910.134, OSHA General Industry Respirator Requirements.
4. 29 CFR 1926.1101. Occupational Exposure to Asbestos, Construction Industry Standard, INCLUDING Appendix A through K.
5 40 CFR Part 61, Subpart M: U.S. Environmental Protection Agency, National Emission Standards for Hazardous Air Pollutants (NESHAP) Asbestos.

D. **State and Local Regulations:**

1. Applicable state and local regulations shall apply.

E. **Architect of the Capitol**

1. The Architect of the Capitol's *Uniform Asbestos Management Program.*
2. Other special requirements listed by the AOC.

1.4 **SUBMITTALS:**

A. **General:** Transmit all submittals to the Architect for review.

B. **Initial Submittal of Asbestos Abatement Contractor or Subcontractor Qualification Information:** Items 1 through 3 below are to be submitted as a complete package after the bid

receipt, but are required to be reviewed by the AOC Safety and Environmental Division (AOC/SOHB) prior to Notice to Proceed.

1. **Asbestos Abatement Contractor or Subcontractor Qualification Information:** Submit for review, the name, address, telephone number and required documentation of qualifications of the Asbestos Abatement Contractor or Subcontractor, selected for this contract.
2. **Certified Industrial Hygienist (Project CIH):** Submit name, address, telephone number and required documentation of qualifications of the Certified Industrial Hygienist selected to perform the duties outlined in 1.2.E above.
3. **Experience and Qualifications of Supervision:** Submit name of and required documentation of qualifications of the proposed competent person who would be assigned to this project, as outlined in "Definitive Responsibility Criteria" above.

C. **Post-Award Asbestos Abatement Submittal:** Items listed below are to be submitted after the award, but are required to be reviewed and recommended approved, by the Project Certified Industrial Hygienist (CIH) prior to submission to the Safety and Occupational Health Branch or his designated representative. These actions must be completed prior to starting work.

1. **Experience and Qualifications of Workers:** Name and experience record, if any, of workmen who will be assigned to this project. Include for each person evidence of successful completion of State of Maryland or Commonwealth of Virginia training given by qualified personnel. Provide certification that employees meet the OSHA medical surveillance requirements.
2. **License Information:** Provide a copy of a current District of Columbia Asbestos Contractor's License and Individual Asbestos License for asbestos projects in the District of Columbia.
3. **CIH Approved Plan of Action:** Before start of work submit the design and layout of the regulated area and the negative air machines. The submittal shall indicate the number of, location of, and size of negative air machines. The point(s) of exhaust, air flow within the regulated area, anticipated negative pressure differential, and supporting calculations for sizing shall be provided. In addition, submit the following:

    a. Manufacturer's information on the negative air machine(s).
    b. Method of supplying power to the units and designation/location of the panels.
    c. Description of testing method(s) for correct air volume and pressure differential.
    d. Provide manufacturer's product data on the pressure differential measuring device used.

    There will be 4 air exchanges required with minus 0.02 inch of water pressure differential. The plan must include the location and layout of each containment and decontamination areas, the sequencing of asbestos work, the interface of trades involved in the performance of work, methods to be used to assure the safety of building occupants and visitors to the site. The plan must explain the use of portable HEPA ventilation systems, identify the means of isolating the building's HVAC system during removal operations, detail the method of removal to prohibit emissions into the work area, and identify the method of packaging the asbestos waste. No locally exhausted HEPA filtered drills or saws shall be used as the sole means of containment of drilling or cutting asbestos-containing materials unless prior approval is given by the AOC/SOHB.

4. **Project CIH Approved Area Sampling Plan:** Submit a detailed plan which shows the proposed air sampling strategy to be used to comply with the requirements specified. This plan must be separate from the CIH approved plan of action. Show all locations where sampling will occur during the asbestos abatement operation.
5. **Temporary Storage of Containerized Asbestos Waste:** Submit a request to the AOC, requesting a location for temporary storage of containerized asbestos waste that is generated by this project.
6. **Project CIH Approved Disposal Plan:** Submit to the Architect a disposal plan including the location of the approved disposal site and the contractor's method for documenting proper asbestos disposal. Detail the methods by which the containerized asbestos waste is taken from the work area to the temporary storage area.
7. **IH qualifications:** Submit the name and required documentation of qualifications of the proposed IH (s)for this project.
8. **NESHAP Notification Requirements**: The contractor shall coordinate with the AOC/SOHB, in submitting the appropriate written notification. Any costs incurred due to expiration of the EPA NESHAP notice before completing assigned abatement work will be at the expense of the Contractor. **For the purpose of this contract, initial and all changes to the initial notification shall be postmarked by the appropriate addressee below, at least** 10 working days and 35 calendar days respectively, prior to the start of asbestos abatement work:

    a. Ten (10) working days prior to beginning asbestos abatement work notify:

    U. S. Environmental Protection Agency Region III
    Pesticides/Asbestos
    Programs and Enforcement Branch
    Mail Code: 3WC32
    1650 Arch Street
    Philadelphia, PA 19107

    And

    District of Columbia
    Department of Health
    Air Quality Division
    51 N Street NE
    Washington, DC 20002
    Phone: (202) 535-2259
    FAX Number 202-535-1371

    Thirty Five (35) days prior to beginning asbestos abatement work notify:

    AOC, Safety and Occupational Health Branch (AOC/SOHB)
    Ford House Office Building
    Room HOB2-553
    Washington DC 20515
    Phone: (202) 225-4043
    FAX NUMBER (202) 226-9915

And the affected AOC Building Superintendent to satisfy the District of Columbia's building occupant asbestos abatement notification requirement.

b. **Changes to the original NESHAP Notification:** Any changes to the original notification, shall be coordinated with the AOC/SOHB prior to submission. After this coordination, the Contractor shall submit changes to the original notification, pursuant to the NESHAP requirements, within the time frames specified and to the appropriate jurisdiction listed above.

c. **Emergency NESHAP Notices:** The Contractor, shall contact the AOC/SOHB, for procedures regarding the submission of any emergency notifications, pursuant to the NESHAP requirements.

9. **AOC Asbestos Project Number:** Contact the AOC/SOHB at 202-225-4043 for this number. This Asbestos Control Number will be used in all documents concerning this project.
10. **Certificates of Compliance:** RESERVED
11. **Information on Encapsulating Material:** Submit written evidence that material meets the the specified characteristics and the latest requirements of the EPA.
12. **Laboratory Qualification Information:** Submit proof of required qualifications of testing laboratory and their personnel. See "Testing Laboratory Qualifications".
13. **Containers For Disposal of Friable Asbestos:** Submit for review, the manufacturers cut sheet for the bags and containers the contractor intends to use to dispose of the asbestos containing material. Bags shall be minimum of 6 mil polyethylene (or equivalent) and labeled in accordance with 40 CFR Part 61 subpart M (NESHAP) and 29 CFR 1926.1101.
14. **Decontamination Facility:** Unless otherwise specified by the AOC/SOHB, throughout the time that asbestos abatement is taking place, the Asbestos Abatement Contractor will maintain a working three-stage decontamination facility at the point of access to the containment. As a minimum, the decontamination facility will consist of a clean changing area, an air space, a shower, another air space, and a contaminated changing area. The size and location of this facility shall be reviewed by the AOC/SOHB.
15. **Sequencing/Scheduling:** Submit for review, the sequencing and/or scheduling for each containment or containments being performed under this contract, to the AOC/SOHB.
16. **Filtering for vacuums and exhaust equipment** shall conform to ANSI Z9.2. HEPA filters shall be used in all vacuums and exhaust equipment. All HEPA filtered vacuums and exhaust equipment shall be tested for integrity with a Dioctylphthalate (DOP) or Dioctylsubacate (DOS) smoke generator. Submit evidence showing that all HEPA filtered vacuums and exhaust equipment, scheduled for use under this Contract, have been tested and passed an DOP or DOS smoke generator.
17. **HEPA Filter Replacement:** If any HEPA filtered vacuums or ventilation equipment requires HEPA filter replacement during this abatement operation, another dioctylpthalate (DOP) test shall be performed. The results of the dioctylpthalate (DOP) test shall be submitted when received and reviewed by the AOC/SOHB before re-using the equipment under this Contract.
18. **Encapsulant Requirements:** Submit, before the start of work, the manufacturer's technical data for all types of encapsulant used on the project. Provide application instructions. Submit certification data as required in Encapsulant section. Submit MSDS for each material in compliance with 29 CFR 1910.1200. Submit certification from manufacturer that material it will adequately wet ACM as per NESHAP requirements.

D. **During-Work Asbestos Abatement Submittal:** After review and approval by the Project CIH, submit items required under 1.4D1 and 1.4D2 to the AOC/SOHB as the work progresses and at the times specified.

1. **Air Monitoring and Work Area Inspections:**

a. **Air Monitoring Results:** Post for all workers to see, within 24 hours of collection, the results of all air monitoring conducted. Post the results at a location designated by the General Contractor and notify the AOC/SOHB. A copy of the results shall be provided to the AOC/SOHB within the same time frame.

b. **Differential Air Pressure Readings:** Starting when a negative pressure containment is erected and approved by the Project CIH, a strip chart recorder shall be installed and work area relative pressure shall be monitored 24 hours a day until final air clearances are produced. Submit a copy of the daily strip chart record to the AOC/SOHB within 24 hours after the recording was made.

c. **Work Area Inspections:** The Project CIH shall personally perform a visual inspection of the abatement work area for the pre-removal, pre-final, and re-occupancy stage. The Project CIH or the IH(s) working for the Project CIH, will perform visual inspections of the abatement work area daily and pre-final. Submit documentation of the daily, pre-removal, pre-final inspections to the AOC/SOHB, within 24 hours of completion. Documentation of the re-occupancy stages of the work inspection shall be submitted to the AOC/SOHB as soon as completed.

2. **Transporting and Disposing of Asbestos Containing Materials (ACM):**

a. **Disposal Receipts:** Submit receipts from the transporter, that acknowledge the contractor's shipment of ACM from the site (NESHAP Waste Shipment Records) within three (3) days following removal of ACM from the premises. Provide on each receipt the date, quantity of material removed, and signature of an authorized representative of the transporter. A signed and dated copy to the Waste Shipment Record, showing receipt at an authorized landfill, must be received by AOC/SOHB within 10 calendar days of the date of the shipping receipt.

b. **Transportation Vehicles:** Transportation shall be in vehicles dedicated to asbestos transportation. Vehicles shall be marked in accordance with DOT and NESHAP regulations.

E. **Final Submittal:** After review and approval by the Project CIH, submit items required under 1 and 2 below to the AOC/SOHB within 3 calendar days at the completion of work for each containment. The CIH shall submit a project report consisting of:

1. The daily log book information and documentation of events during the abatement project.
2. Copies of all waste shipment records for asbestos waste sent to the designated landfill.
3. The report shall include a certificate of completion.
4. All air and bulk sampling conducted for this project.
5. All final air clearance data.
6. All perimeter samples.
7. Copies of training certificates for all personnel engaged in this abatement work.
8. Copies of respirator fit tests for all personnel engaged in this abatement work.

9. Copies of the OSHA required asbestos and respirator medical clearances for all personnel engaged in this abatement work.
10. The final report shall include an executive summary. The executive summary must show:

    a. A summary of the work done.
    b. A statement that all personnel conducting this abatement operation had all required training and were medically cleared to perform this type of work in accordance with OSHA, EPA regulations and all State and Local laws, rules and regulations.
    c. The executive summary must also show that all final air samples results were below the limits established by EPA, the District of Columbia, and this specification and declare the area ready for re-occupancy.
    d. Describe the type, application, and quantity of asbestos containing materials removed by the contractor.
    e. Include all copies of the final air and bulk sampling as performed by a third party.
    f. Indicate that all building systems disturbed by the contractor during the work under the contract have been reinstalled and are in working order.

1.5 **CONTRACTOR RESPONSIBILITY:**

A. **The Contractor** shall assume full responsibility and liability for compliance with all applicable Federal, State, and local regulations pertaining to the protection of workers, visitors to the site, and persons occupying areas adjacent to the site. The Contractor is responsible for providing medical examinations and maintaining medical records of personnel as required by the applicable Federal, State, and local regulations, and shall hold the government harmless for failure to comply with any applicable safety or health regulation on the part of himself, his employees, or his subcontractors.

B. **The Contractor shall** secure all necessary permits in conjunction with asbestos removal, hauling and disposition and provide timely notification of such actions, as may be required by federal, state, regional, and local authorities. For this project, ensure that notification to the Regional Office of the EPA and the District of Columbia is made, and provide copies of the notification to the AOC/SOHB 10 days prior to the commencement of the work. Provide notification in accordance with 40 CFR 61.22(d)(1).

C. **The Contractor** shall inform the affected building Superintendent and the AOC/SOHB not less than thirty five (35) days prior to commencement of the asbestos abatement, of the health or safety factors that necessitate the asbestos abatement and procedures that will be taken to protect the health, safety, and possessions of the building occupants.

D. **SITE SECURITY**

1. **Regulated area** access is to be restricted only to authorized, trained/accredited and protected personnel. These may include the Abatement Contractor's employees, employees of Subcontractors, AOC employees and representatives, State and local inspectors, and any other designated individuals. A list of authorized personnel shall be established prior to commencing the project and be posted in the clean room of the decontamination unit.
2. **Entry into** the regulated area by unauthorized individuals shall be reported immediately to the Competent Person.

3. **A log book** shall be maintained in the clean room of the decontamination unit. Anyone who enters the regulated area must record their name, affiliation, time in, and time out for each entry.
4. **Access to the** regulated area shall be through a single decontamination unit. All other access (doors, windows, hallways, etc.) shall be sealed or locked to prevent entry to or exit from the regulated area. The only exceptions for this requirement are the waste load-out area which shall be sealed except during the removal of containerized asbestos waste from the regulated area, and emergency exits. Emergency exits shall not be locked from the inside, however, they shall be sealed with poly sheeting and taped until needed.
5. **The Abatement Contractor's** Competent Person shall control site security during abatement operations in order to isolate work in progress and protect adjacent personnel. Containment shall be locked out when the competent person leaves the site. The entrance to the regulated area requires all entrants to be logged in/out so that only authorized personnel are allowed entrance.
6. **The Abatement Contractor** will have the AOC's assistance in notifying adjacent personnel of the presence, location, and quantity of ACM in the regulated area and enforcement of restricted access by the AOC's employees.
7. **The Abatement Contractor** shall provide plans to secure the regulated area during non-working hours.

E. **EMERGENCY ACTION PLAN AND ARRANGEMENTS**

1. **An Emergency Action Plan** shall be developed by the Abatement Contractor prior to commencing abatement activities and shall be agreed to by the Abatement Contractor and the AOC. The Plan shall meet the requirements of 29 CFR 1910.38 (a);(b).
2. **Emergency procedures shall** be in written form and prominently posted in the clean room and equipment room of the decontamination unit. Everyone, prior to entering the regulated area, must read and sign these procedures to acknowledge understanding of the regulated area layout, location of emergency exits and emergency procedures.
3. **Emergency planning** shall include written notification of police, fire, and emergency medical personnel of planned abatement activities; work schedule and layout of regulated area, particularly barriers that may affect response capabilities.
4. **Emergency planning** shall include consideration of fire, explosion, hazardous atmospheres, electrical hazards, slips/trips and falls, fiber release episodes, confined spaces, and heat stress illness. Written procedures addressing emergency situations shall be developed. Employees need to be aware of these procedures.
5. **Employees shall** be trained in regulated area/site evacuation procedures in the event of workplace emergencies.

    1. **For non life-threatening** situations - employees injured or otherwise incapacitated shall decontaminate following normal procedures with assistance from fellow workers, if necessary, before exiting the regulated area to obtain proper medical treatment.
    2. **For life-threatening** injury or illness, worker decontamination shall take least priority after measures to stabilize the injured worker, remove them from the regulated area, and secure proper medical treatment.

6. **Telephone numbers** of all emergency response personnel shall be prominently posted in the clean room, along with the location of the nearest telephone.

7. **The Emergency Action Plan** shall provide for a contingency plan in the event that an incident occurs that may require the modification of the standard operating procedures during abatement. Such incidents include, but are not limited to, fire; accident; power failure; negative pressure failure; and supplied air system failure. The Abatement Contractor shall detail procedures to be followed in the event of an incident assuring that work is stopped and wetting is continued until correction of the problem.

1.6 **PROJECT/SITE CONDITIONS:**

A. **Means of Egress:** Establish and maintain emergency and fire exits from the work area.

B. **Environmental Conditions to be Maintained:** Normal environmental conditions (heat, light, air conditioning) must be maintained outside of the work area.

C. **DECONTAMINATION FACILITIES:** Provide each work area with separate personnel decontamination facility (PDF) and equipment decontamination facilities (EDF). Ensure that the PDF is the only means of ingress and egress to the regulated area and that all equipment, bagged waste, and other material exit the regulated area only through the EDF. See OSHA 29 CFR 1926.1101, Appendix F. The size and location of this facility shall be reviewed by the AOC/SOHB.

1. **GENERAL REQUIREMENTS**. All personnel entering or exiting a regulated area shall follow the requirements of 29 CFR 1926.1101 (j)(1) and these specifications. All equipment and materials must exit the regulated area through the EDF and be decontaminated in accordance with these specifications. Walls and ceilings of the PDF and EDF must be constructed of a minimum of 2 layers of 6 mil, clear/opaque/black/ white fire retardant polyethylene sheeting and be securely attached to existing building components and/or an adequate temporary framework. A minimum of 2 layers of 6 mil poly shall also be used to cover the floor under the EDF and PDF units. Construct doors so that they overlap and secure to adjacent surfaces. Weigh sheets with layers of duct tape so that they close quickly after release. Put arrows on sheets so they show direction of travel and overlap. Construct a solid barrier on the occupied side(s) to protect the sheeting if the area adjacent to the abatement is occupied,.
2. **TEMPORARY FACILITIES TO THE PDF AND EDF**. The Competent Person shall provide temporary water service connections to the EDF and PDF. Water supply must be of adequate pressure and meet requirements of 29 CFR 1910.141(d)(3). Provide adequate temporary electric power with ground fault protection and overhead wiring in the EDF and PDF. Provide a sub-panel for all temporary power in the clean room. Provide adequate lighting to maintain a minimum of 50 foot candles in the EDF and PDF. Provide temporary heat to maintain 70 deg F throughout the PDF and EDF except the shower of the PDF shall be maintained at 75 deg F.
3. **PERSONNEL DECONTAMINATION FACILITY (PDF**). The Competent Person shall provide a PDF consisting of shower room which is contiguous to a clean room and equipment room. The PDF must be sized to accommodate the number of personnel scheduled for the project. The shower room, located in the center of the PDF, shall be fitted with as many portable showers as necessary to insure all employees can complete the entire decontamination procedure within 15 minutes. The PDF shall be constructed of opaque poly for privacy. The PDF shall be constructed to eliminate any parallel routes of egress without showering.

4. **Clean Room:** The clean room must be visually separated from the rest of the building to protect the privacy of personnel changing clothes. The clean room shall be constructed of at least 2 layers of 6 mil fire retardant poly to provide an air tight room. Provide a minimum of 2 flapped doorways 3 feet wide. One doorway shall be the entry from outside the PDF and the second doorway shall be to the shower room of the PDF. The floor of the clean room shall be maintained in a clean, dry condition. Shower overflow shall not be allowed into the clean room. All surfaces in the clean room shall be disinfected twice after each shift change. An adequate supply of disposable towels and disposable protective clothing shall be present in the clean room. Provide up to 2 storage lockers per person. A portable fire extinguisher, Type ABC, shall be provided in accordance with OSHA and NFPA Standard 10. All persons entering the regulated area shall remove all street clothing in the clean room and dress in disposable protective clothing and respiratory protection. Any person entering the clean room does so either from the outside with street clothing on or is coming from the shower room without clothing or with bathing suits and thoroughly washed. Ensure that females, who are required to enter the regulated area be ensured of their privacy throughout the entry/exit process by posting guards at both entry points to the PDF so no male can enter or exit the PDF during her stay in the PDF.
5. **Shower Room**: The Competent Person shall assure that the shower room is a completely water tight compartment to be used for the movement of all personnel from the clean room to the equipment room and for the showering of all personnel going from the regulated area to the clean room. Each shower shall be constructed so water runs down the walls of the shower and into a drip pan. Install a freely draining smooth floor on top of the shower pan. The shower room shall be separated from the rest of the building and from the clean room and equipment room using air tight walls made from at least 2 layers of 6 mil fire retardant poly. The shower shall be equipped with a shower head and controls, hot and cold water, drainage, soap dish and continuous supply of soap, and shall be maintained in a sanitary condition throughout its use. The controls shall be arranged so an individual can shower without assistance. Provide a flexible hose shower head. Waste water will be pumped to a drain after being filtered through a minimum of a 100 micron sock in the shower drain; a 20 micron filter; and a final 5 micron filter. Filters will be changed a minimum of daily or more often as needed. Filter changes must be done in the shower to prevent loss of contaminated water. Hose down all shower surfaces after each shift and clean any debris from the shower pan. Residue is to be disposed of as asbestos waste.
6. **Equipment Room**: The Competent Person shall provide an equipment room which shall be an air tight compartment for the storage of work equipment, reusable footwear and for use as a change station for personnel exiting the regulated area. The equipment room shall be separated from the regulated area by a minimum 3 foot wide door made of three layers of 6 mil fire retardant poly. The equipment room shall be separated from the regulated area, the shower room and the rest of the building by air tight walls and ceiling constructed of a minimum of 2 layers of 6 mil fire retardant poly. If the airborne level of asbestos in the regulated area is expected to exceed 0.5 f/cc, add an additional air-lock between the equipment room and the regulated area. Damp wipe all surfaces of the equipment room after each shift change. Provide an additional loose layer of 6 mil fire retardant poly per shift change and remove this layer after each shift. Provide a temporary electrical sub-panel in this room to accommodate any power tools and equipment used in the regulated area.
7. **PDF construction shall be:** Clean room at the entrance followed by a shower room followed by an equipment room leading to the regulated area. Each doorway in the PDF is minimum of double flaps of 6 mil fire retardant poly.

8. **EQUIPMENT DECONTAMINATION FACILITY (EDF)**. The Competent Person shall provide an EDF consisting of a wash room, and clean room for removal of equipment and material from the regulated area. Personnel shall not enter or exit the EDF except in the event of an emergency. Clean debris and residue in the EDF daily. All surfaces in the EDF shall be wiped/hosed down after each shift and all debris shall be cleaned from the shower pan. The EDF shall consist of the following:

    a. **Wash Down Station:** Provide an enclosed shower unit in the regulated area just outside the Wash Room as an equipment bag and container cleaning station.
    b. **Wash Room**: Provide a wash room for cleaning of bagged or containerized asbestos containing waste materials passed from the regulated area. Construct the wash room using materials selected and furnished by the Abatement Contractor and 2 layers of 6 mil fire retardant poly. Locate the wash room so that packaged materials, after being wiped clean, can be passed to the Holding Room. Doorways in the wash room shall be constructed of two layers of 6 mil fire retardant poly.
    c. **Holding Room**: Provide a holding room as a drop location for bagged materials passed from the wash room. Construct the holding room using materials selected and furnished by the Abatement Contractor and 2 layers of 6 mil fire retardant poly. The holding room shall be located so that bagged material cannot be passed from the wash room to the clean room unless it goes through the holding room. Doorways in the holding room shall be constructed of two layers of 6 mil fire retardant poly.
    d. **Clean Room:** Provide a clean room to isolate the holding room from the building. Construct the clean room using materials selected and furnished by the Abatement Contractor and 2 layers of 6 mil fire retardant poly. The clean room shall be located so as to provide access to the holding room from the building. Doorways to the clean room shall be constructed of two layers of 6 mil fire retardant poly. When a negative pressure differential system is used, a rigid enclosure separation between the EDF clean room and the adjacent areas shall be provided.
    e. **EDF construction shall be:** Wash Room leading to a Holding Room followed by a Clean Room leading to the building.

9. **EQUIPMENT DECONTAMINATION PROCEDURES**. At wash down station in the regulated area, thoroughly wet clean contaminated equipment and/or sealed polyethylene bags and pass into Wash Room after visual inspection. When passing anything into the Wash Room, close all doorways of the EDF, other than the doorway between the wash down station and the Wash Room. Keep all outside personnel clear of the EDF. Once inside the Wash Room, wet clean the equipment and/or bags. Close all doorways except the doorway between the Holding Room and the Clean Room. Workers from the Clean Room/Exterior shall enter the Holding Room and remove the decontaminated/cleaned equipment/bags for removal and disposal. These personnel shall wear full protective clothing and appropriate respirators. At no time shall personnel from the clean side be allowed to enter the Wash Room.

D. **Access to Work Area:** Only approved personnel are authorized access to the work area. Once asbestos removal has started, access to the abatement work area by non-approved personnel is not permitted unless authorized by the AOC/SOHB representative, the Project CIH or the competent person. Access to work areas shall always be through decontamination areas. No employee shall be allowed to wear a respirator unless a physician has determined they are capable of doing so and has issued a written opinion for that person. All personnel wearing

respirators shall have a current qualitative/quantitative fit test which was conducted in accordance with 29 CFR 1910.134 (f) and Appendix A. Fit tests shall be done for PAPRs with the blower off. The Competent Person shall assure that the positive/negative fit check is done each time the respirator is donned by an employee. Head coverings must cover respirator head straps. Any situation that prevents an effective face piece to face seal as evidenced by failure of a fit check shall preclude that person from wearing a respirator until resolution of the problem. The Project CIH shall review work area air samples and make adjustments for the type of respiratory protection required. All personnel in the regulated area shall not be allowed to eat, drink, smoke, chew tobacco or gum, apply cosmetics, or in any way interfere with the fit of their respirator. The following personnel shall have access to work area with the established respiratory protection:

1. The AOC/SOHB will provide a list of AOC employees, who are authorized access to the abatement area.
2. OSHA Inspectors.
3. EPA Inspectors.
4. DC Inspectors.
5. Approved Contractor personnel.

E. **PROTECTIVE CLOTHING**: Provide boots, booties, hard hats, goggles, clothing, respirators and any other personal protective equipment as determined by conducting the hazard assessment required by OSHA in 29 CFR 1910.132 (d). Provide all personnel entering the regulated area with disposable full body coveralls, disposable head covering, and 18 inch boot coverings. The Competent Person shall ensure the integrity of personal protective equipment worn for the duration of the project. Provide plastic/rubber disposable gloves for hand protection. Cloth type gloves may be worn under plastic/rubber gloves, but cannot be used alone. Duct tape shall be used to secure all suit sleeves to wrists and to secure foot coverings at the ankle. The contractor shall provide daily, five sets of protective clothing for use by visiting authorized personnel.

F. **REGULATED AREA ENTRY PROCEDURE**: Worker protection shall meet the most stringent requirement. The Competent Person shall ensure that each time workers enter the regulated area, they remove ALL street clothes in the clean room of the decontamination unit and put on new disposable coveralls, head coverings, a clean respirator, and then proceed through the shower room to the equipment room where they put on non-disposable required personal protective equipment.

G. **DECONTAMINATION PROCEDURE - PAPR**: The Competent Person shall require all personnel to adhere to following decontamination procedures whenever they leave the regulated area.

1. **When exiting** the regulated area, remove disposable coveralls, and ALL other clothes, disposable head coverings, and foot coverings or boots in the equipment room.
2. **Proceed to the** shower with respirator but without clothing or with bathing suit. Showering is MANDATORY. Care must be taken to follow reasonable procedures in removing the respirator to avoid damaging filters while showering. The following procedure is required as a minimum:

    a. **Thoroughly wet** body including hair and face. If using a PAPR, hold blower and battery above head to keep filters dry.

b. **With respirator** still in place, thoroughly decontaminate body, hair, respirator face piece, and all other parts of the respirator except the blower and battery pack on a PAPR. Pay particular attention to cleaning the seal between the face and respirator face piece and under the respirator straps.
c. **Take a deep breath**, hold it and/or exhale slowly, completely wetting hair, face, and respirator. While still holding breath, remove the respirator and hold it away from the face before starting to breathe.

3. **Carefully decontaminate** the face piece of the respirator inside and out. If using a PAPR, shut down using the following sequence: a) first cap inlets to filters; b) turn blower off to keep debris collected on the inlet side of the filter from dislodging and contaminating the outside of the unit; c) thoroughly decontaminate blower and hoses; d) decontaminate battery pack with a damp rag. (Note: THIS PROCEDURE IS NOT A SUBSTITUTE FOR RESPIRATOR CLEANING!).
4. **Shower and** wash body completely with soap and water. Rinse thoroughly.
5. **Rinse shower** room walls and floor to drain prior to exiting.
6. **Proceed from** shower to clean room; dry off and change into street clothes or into new disposable work clothing.

H. **DECONTAMINATION PROCEDURE - AIR PURIFYING, NEGATIVE PRESSURE RESPIRATOR**: The Competent Person shall require all personnel use the following decontamination procedures, as a minimum, whenever leaving the regulated area with a full face, HEPA filtered respirator:

1. **When exiting** the regulated area, remove disposable coveralls and ALL other clothes, disposable head coverings, and disposable foot coverings or boots in the equipment room.
2. **Still wearing** the respirator and completely naked, proceed to the shower, which is mandatory. Care must be taken to follow reasonable procedures in removing the respirator and filters to avoid asbestos fibers while showering. The following procedure is required, as a minimum:

a. **Thoroughly wet** body from neck down. Wet hair as thoroughly as possible without wetting the respirator filter.
b. **Take a deep** breath, hold it and/or exhale slowly, complete wetting of hair, thoroughly wetting face, respirator and filter(s). While still holding breath, remove respirator and hold it away from face before starting to breathe.

3. **Dispose of** wetted filters from respirator.
4. **Carefully decontaminate** respirator face piece and respirator inside and out. (NOTE: THIS IS NOT A SUBSTITUTE FOR RESPIRATOR CLEANING!).
5. **Shower and wash** body completely with soap and water. Rinse thoroughly.
6. **Rinse shower** room walls and floor to drain prior to exiting.
7. **Proceed from** shower room to clean room and change into street clothes or into new disposable work clothes.

PART 2 - PRODUCTS

2.1 MATERIALS AND EQUIPMENT:

A. **General Requirements (All Abatements Projects):** All equipment, including protective clothing and respirators, used in the execution of this contract and provided to visitors to the site, shall be approved by the Project CIH and shall comply with ASTM E 849 and with the applicable Federal, State, and local regulations. Respirators shall conform to the OSHA requirements in 29 CFR 1910.134 and 29 CFR 1926.1101, except that single use and disposable respirators shall not be used. Type of respirators required shall be as specified by the Project CIH. If any air sampling indicates levels above 0.1 fibers per cubic centimeter or "too dirty to count", powered air or supplied air (type C) respirators shall be required during actual removal operations.

Prior to the start of work, the abatement contractor shall provide and maintain a sufficient quantity of materials and equipment to assure continuous and efficient work throughout the duration of the project. Work shall not start unless the following items have been delivered to the site and the CIH has submitted verification to the AOC's representative to this effect.

1. **All materials** shall be delivered in their original package, container or bundle bearing the name of the manufacturer and the brand name (where applicable).
2. **Store all materials** subject to damage off the ground, away from wet or damp surfaces and under cover sufficient enough to prevent damage or contamination. Flammable materials cannot be stored inside buildings. Replacement materials shall be stored outside of the regulated/work area until abatement is completed.
3. **The Abatement Contractor** shall not block or hinder use of buildings by staff and visitors to the AOC in partially occupied buildings by placing materials/equipment in any unauthorized place.
4. **The Competent Person** shall inspect for damaged, deteriorating or previously used materials. Such materials shall not be used and shall be removed from the work site and disposed of properly.
5. **Polyethylene sheeting** for walls in the regulated area shall be a minimum of 6-mil thick. For floors and all other uses, sheeting of at least 6-mil thickness shall be used in widths selected to minimize the frequency of joints. Fire retardant poly shall be used throughout.
6. **The method of** attaching polyethylene sheeting shall be agreed upon in advance by the Contractor and the AOC and selected to minimize damage to equipment and surfaces. Method of attachment may include any combination of moisture resistant duct tape or other waterproof tape, furring strips, spray glue, staples, nails, screws, lumber and plywood for enclosures or other effective procedures capable of sealing polyethylene to dissimilar finished or unfinished surfaces under both wet and dry conditions (including the use of amended water).
7. **Polyethylene sheeting** utilized for personnel decontamination facility shall be opaque white or black in color, 6 mil fire retardant poly.
8. Installation and plumbing hardware, showers, hoses, drain pans, sump pumps and waste water filtration system shall be provided.
9. **An adequate number** of negative pressure units capable of providing a minimum of 4 air changes per hour in the regulated area while maintaining minus 0.02 inch water column shall be used. Two (2) additional negative pressure units shall be available to replace any malfunctioning unit.
10. **An adequate number** of HEPA vacuums, air sampling pumps and loaded filter cassettes, supplied air system, if used, providing Grade D breathing air with respirators and air lines sufficient for personnel, pressure differential gauge and recording capability shall be provided.

11. **An adequate number** of scrapers, sprayers, nylon brushes, brooms, disposable mops, rags, sponges, staple guns, shovels, ladders and scaffolding of suitable height and length as well as meeting OSHA requirements, fall protection devices, water hose to reach all areas in the regulated area, airless spray equipment, and any other tools, materials or equipment required to conduct the abatement project. All electrically operated hand tools, equipment, electric cords shall be equipped with ground-fault circuit protection.
12. **Special protection** for objects in the regulated area shall be detailed (e.g., plywood over carpeting or hardwood floors to prevent damage from scaffolds and falling material).
13. **6 mil disposal** bags for asbestos waste shall be pre-printed with labels and markings as required by OSHA, EPA.
14. **Impermeable asbestos** disposal drums shall be metal or fiberboard with locking ring tops with required OSHA, EPA and DOT labels and markings.
15. **The AOC shall be** provided a copy of the MSDS as required for all hazardous chemicals including encapsulants under OSHA 29 CFR 1910.1200 - Hazard Communication. Methylene chloride shall not be used with any spray adhesive or other product.
16. **DANGER signs**, as many and as required by OSHA 29 CFR 1926.1101(k)(7), shall be provided and placed by the Competent Person. All other posters and notices required by Federal and State regulations shall be posted in the Clean Room.
17. **Adequate respirators**, disposable protective clothing, hard hats, goggles, gloves and footwear for the project and number of personnel/shifts shall be provided. All personal protective equipment issued must be based on a hazard assessment conducted under 29 CFR 1910.132(d).

B. **NEGATIVE PRESSURE FILTRATION SYSTEM**: The Abatement Contractor shall provide enough HEPA negative air machines to completely exchange the regulated area air volume 4 actual times per hour. The Competent Person shall determine the number of units needed for each regulated area by dividing the cubic feet in the regulated area by 15 and then dividing that result by the actual cubic feet per minute (cfm) for each unit to determine the number of units needed to effect 4 air changes per hour and maintain -.02 inches of negative pressure. Provide a standby units in the event of machine failure and/or emergency in an adjacent area.

C. **NEGATIVE AIR MACHINES (HEPA UNITS)**

1. **Negative Air Machine Cabinet:** The cabinet shall be constructed of steel or other durable material capable of withstanding potential damage from rough handling and transportation. The width of the cabinet shall be less than 30 inches in order to fit in standard doorways. The cabinet must be factory sealed to prevent asbestos fibers from being released during use, transport, or maintenance. Any access to and replacement of filters shall be from the inlet end. The unit must be on casters or wheels.
2. **Negative Air Machine Fan:** The fan rating must provide the air-moving capacity under actual operating conditions. Manufacturer's typically use "free-air" (no resistance) conditions when rating fans. The fan must be a centrifugal type fan.
3. **Negative Air Machine Final Filter:** The final filter shall be a HEPA filter. The filter media must be completely sealed on all edges within a structurally rigid frame. The filter shall align with a continuous flexible gasket material in the negative air machine housing to form an air tight seal. Each HEPA filter shall be individually tested and certified by the manufacturer to have an efficiency of not less than 99.97 percent when challenged with 0.3 mm dioctylphthalate (DOP) particles. Testing shall have been done in accordance with Military Standard MIL-STD-282 and Army Instruction Manual 136-300-175A. Each filter

must bear a UL586 label to indicate ability to perform under specified conditions. Each filter shall be marked with the name of the manufacturer, serial number, air flow rating, efficiency and resistance, and the direction of test air flow.

4. **Negative Air Machine Pre-filters:** The pre-filters, which protect the final HEPA filter by removing larger particles, are required to prolong the operating life of the HEPA filter. Two stages of pre-filtration are required. A first stage pre-filter shall be a low efficiency type for particles 10 microns or larger. A second stage pre-filter shall have a medium efficiency effective for particles down to 5 microns or larger. Pre-filters shall be installed either on or in the intake grid of the unit and held in place with a special housing or clamps.
5. **Negative Air Machine Instrumentation:** Each unit must be equipped with a gauge to measure the pressure drop across the filters and to indicate when filters have become loaded and need to be changed. A table indicating the cfm for various pressure readings on the gauge shall be affixed near the gauge for reference or the reading shall indicate at what point the filters shall be changed, noting cfm delivery at that point. The unit must have an elapsed time meter to show total hours of operation.
6. **Negative Air Machine Safety and Warning Devices:** An electrical/ mechanical lockout must be provide to prevent the fan from being operated without a HEPA filter. Units must be equipped with an automatic shutdown device to stop the fan in the event of a rupture in the HEPA filter or blockage in the discharge of the fan. Warning lights are required to indicate normal operation; too high a pressure drop across filters; or too low of a pressure drop across filters.
7. **Negative Air Machine Electrical:** All electrical components shall be approved by the National Electrical Manufacturer's Association (NEMA) and Underwriter's Laboratories (UL). Each unit must be provided with overload protection and the motor, fan, fan housing, and cabinet must be grounded.

D. **HEPA Vacuums**

1. **All HEPA vacuums:** All electrical components shall be approved by the National Electrical Manufacturer's Association (NEMA) and Underwriter's Laboratories (UL). Each unit must be provided with overload protection and the motor and housing must be grounded.

B. **Testing of the HEPA Filtered vacuum HEPA filter:** The vacuum filter shall be a HEPA filter. The filter media must be completely sealed on all edges within a structurally rigid frame. The filter shall align with a continuous flexible gasket material in the HEPA vacuum housing to form an air tight seal. Each HEPA filtered vacuum shall be individually tested and certified to have an efficiency of not less than 99.97 percent when challenged with 0.3 mm dioctylphthalate (DOP) particles. Testing shall have been done in accordance with Military Standard MIL-STD-282 and Army Instruction Manual 136-300-175A. Each filter must bear a UL586 label to indicate ability to perform under specified conditions. Each filter shall be marked with the name of the manufacturer, serial number, air flow rating, efficiency and resistance, and the direction of test air flow.

2.2 ENCAPSULATING MATERIALS:

A. **TYPES OF Encapsulant:** The following four types of encapsulant must comply with performance requirements as stated in “Performance Requirements”:

1. Removal encapsulant - used as a wetting agent to remove ACM.
2. Bridging encapsulant - provides a tough, durable coating on ACM.
3. Penetrating encapsulant - penetrates/encapsulates ACM at least 13 mm (½").
4. Lock down encapsulant - seals microscopic fibers on surfaces after ACM removal.

B. **PERFORMANCE REQUIREMENTS:** Encapsulant shall meet the latest requirements of EPA; shall not contain toxic or hazardous substances; or solvents; and shall comply with the following performance requirements:

1. General Requirements for all encapsulants:

   a. ASTM E84: Flame spread of 25; smoke emission of 50.
   b. University of Pittsburgh Protocol: Combustion Toxicity; zero mortality.
   c. ASTM C732: Accelerated Aging Test; Life Expectancy 20 years.
   d. ASTM E96 Permeability: Minimum of 0.4 perms.

2. Bridging/Penetrating Encapsulant:

   a. ASTM E736 Cohesion/Adhesion Test: 24 kPa (50 lbs/ft2).
   b. ASTM E119 Fire Resistance: 3 hours (Classified by UL for use on fibrous or cementitious fireproofing).
   c. ASTM D2794 Gardner Impact Test; Impact Resistance: Minimum 11.5 kg-mm (43 in/lb).
   d. ASTM D522 Mandrel Bend Test; Flexibility: No rupture or cracking.

3. Lock down Encapsulant:

   a. ASTM E119 Fire resistance: 3 hours (tested with fireproofing over encapsulant applied directly to steel member).
   b. ASTM E736 Bond Strength: 48 kPa (100 lbs/sq. ft.) (test compatibility with cementitious and fibrous fireproofing).
   c. In certain situations, encapsulant may have to be applied to hot pipes or equipment. The encapsulant shall be able to withstand high temperatures without cracking or off-gassing any noxious vapors during application.

4. **The Project CIH** shall review and recommend approval for all encapsulating materials used under this contract, prior to submitting them to Architect for review, and prior to their use on site. Encapsulating materials (sealants) shall meet the latest requirements of the Environmental Protection Agency (EPA) and shall possess the characteristics outlined in paragraphs “Types of Encapsulant” and “Performance Requirements” above and the following:

   a. **Adherence.** The sealant eliminates fiber dispersal by adhering to the fibrous substrate with sufficient penetration to prevent separation of the sealant from the sprayed asbestos material.
   b. **Impact Penetration.** It withstands impact and penetration, protects the enclosed sprayed asbestos material, and it must not cause separation of sprayed asbestos material from its original substrate.

c. **Flexibility.** It possesses enough flexibility to accommodate atmospheric changes and settling of the structure over time.
d. **Resistance to Smoke and Flame.** It shall have high flame retardant characteristics and a low toxic fume and smoke emission rating.
e. **Ease of Application.** It must be easily applied with relative insensitivity to errors in preparation or application. Ease of repair by routine maintenance personnel is desirable.
f. **Toxicity.** The sealant must be neither noxious nor toxic to application workers and structure users thereafter.
g. **Permeability.** It should have some permeability to water vapor to prevent condensation accumulation be resistant to common cleaning agents.
h. **Stability.** It shall have suitable stability to weathering and aging.

C **Guarantee.** Guarantee encapsulating materials in accordance with Guarantee clause of the General Conditions.

PART 3 - EXECUTION

3.1 PREPARATION:

A. **ISOLATE THE WORK AREA.** Place all tools, scaffolding, materials and equipment needed for working in the regulated area prior to erecting any plastic sheeting. Remove all uncontaminated removable furniture, equipment, and supplies from the regulated area before commencing work, or completely cover with two layers of 6-mil fire retardant poly sheeting and secure with duct tape. Lock out and tag out any HVAC systems in the regulated area. Seal off the perimeter to the regulated area to completely isolate the regulated area from adjacent spaces. All surfaces in the regulated area must be covered to prevent contamination and to facilitate clean-up. Should adjacent areas become contaminated, immediately stop work and clean up the contamination at no additional cost to the Government. Provide firestopping and identify all fire barrier penetrations.

B. **CRITICAL BARRIERS**: Completely separate the regulated area from adjacent areas using fire retardant poly at least 6 mils thick and duct tape. Individually seal with two layers of 6 mil poly and duct tape all HVAC openings into the regulated area. Individually seal all lighting fixtures, clocks, doors, windows, convectors, speakers, or any other objects or openings in the regulated area. Use care with hot/warm surfaces.

C. **PRIMARY BARRIERS:** Clean all furniture, equipment, etc., with HEPA vacuum and wet cleaning prior to being moved or covered. Clean all surfaces in the regulated area with the HEPA vacuum and wet wiping before installing poly sheeting. Cover the regulated area with two layers of 6 mil fire retardant poly on the floors and two layers of 6 mil fire retardant poly on the walls, unless otherwise directed in writing by the AOC's representative. Floor layers must form a right angle with the wall and turn up the wall at least 300 mm (12 inches). Seams must overlap at least 1800 mm (6 feet) and must be spray glued and taped. Install sheeting so that layers can be removed independently from each other. Mechanically support and seal with duct tape and glue all wall layers.

1. **Stairs and Ramps:** If stairs and ramps are covered with 6 mil plastic, two layers must be used. Provide 19 mm (3/4") exterior grade plywood treads held in place with duct tape/glue on the plastic. Do not cover rungs or rails with any isolation materials.
2. **Carpeted Floors:** Carpeting shall be covered with three layers of 6 mil poly. Corrugated cardboard sheets or a ridge material approved by the AOC must be placed between the top and middle layers of the poly.
3. **Elevators:** Any elevator walls, floor, and ceiling must be covered with 2 layers of 6 mil fire retardant poly. The elevator door must be in a positively pressurized area outside the clean room of the Decontamination unit. At completion of the abatement work, the elevator must be cleaned as per this section.

D. **SECONDARY BARRIERS**: A loose layer of 6 mil poly shall be used as a drop cloth to protect the primary layers from debris generated during the abatement. This layer shall be replaced at the end of each work shift or as needed during the work.

E. **EXTENSION OF THE REGULATED AREA**: If the enclosure of the regulated area is breached in any way that could allow contamination to occur, the affected area shall be included in the regulated area and constructed as per this section. If the affected area cannot be added to the regulated area, decontamination measures must be started immediately and continue until air monitoring indicates levels outlined in "Asbestos Control Area" for outside the work area, above, are met.

F. **FIRESTOP REQUIREMENTS**: Through penetrations caused by cables, cable trays, pipes, sleeves must be firestopped with a fire-rated firestop system providing an air tight seal. Firestop materials that are not equal to the wall or ceiling penetrated shall be brought to the attention of the AOC Fire Protection Division. The contractor shall list all areas of penetration, the type of sealant used, and whether or not the location is fire rated. Any discovery of penetrations during abatement process shall immediately be brought to the attention of the AOC Fire Protection Division. All walls, floors and ceilings are considered fire rated unless otherwise determined by the AOC Fire Protection Division. Any visible openings whether or not caused by a penetration shall be reported by the contractor to the AOC Fire Protection Division for a sealant system determination. For firestops, contact the AOC Fire Protection Division for the opening size, penetration, and fire rating requirements.

G. **PRESSURE DIFFERENTIAL**: The fully operational negative air system within the regulated area shall continuously maintain a pressure differential of minus 0.02 inch water column. Before any disturbance of any asbestos material, this shall be demonstrated to the AOC by use of a pressure differential meter/manometer as required by OSHA 29 CFR 1926.1101(e)(5)(i). The Competent Person shall be responsible for providing and maintaining the negative pressure and air changes as required by OSHA and this specification. In any AOC-occupied building or facility, the abatement contractor is responsible for providing twenty four (24) hour, seven (7) days a week observation of the negative pressure air system once asbestos removal starts. This observation shall continue until final air clearance criteria are met. The suspension of this requirement can only be approved by the AOC/SOHB. Instructions to be followed during the observations will be outlined during the CIH pre-abatement coordination meeting specified in Part 1 above.

H. **MONITORING**: The pressure differential shall be continuously monitored and recorded between the regulated area and the area outside the regulated area with a monitoring device that

incorporates a strip chart recorder. The strip chart recorder shall become part of the project log and shall indicate at least minus 0.02 inch water column for the duration of the project.

I. **SUPPLEMENTAL MAKE-UP AIR INLETS:** Provide, as needed for proper air flow in the regulated area, in a location approved by the Project CIH, by making openings in the plastic sheeting to allow outside air to flow into the regulated area. Auxiliary makeup air inlets must be located as far from the negative air machines as possible, off the floor near the ceiling, and away from the barriers that separate the regulated area from the occupied clean areas. Cover the inlets with weighted flaps which will seal in the event of failure of the negative pressure system. The flap must be sprayed with adhesive to assure sealing if it closes.

J. **TESTING THE SYSTEM**: The negative pressure system must be tested before any ACM is disturbed in any way. After the regulated area has been completely prepared, the decontamination units set up, and the negative air machines installed, start the units up one at a time. Demonstrate the operation and testing of the negative pressure system to the AOC/SOHB using smoke tubes and a negative pressure gauge to document the negative pressure and air flow. Testing must also be done at the start of each work shift.

K. **DEMONSTRATION OF THE NEGATIVE AIR PRESSURE SYSTEM**: The demonstration of the operation of the negative pressure system to the AOC/SOHB shall include, but not be limited to, the following:

1. **Plastic barriers** and sheeting move lightly in toward the regulated area.
2. **Curtains of** the decontamination units move in toward regulated area.
3. **There is a** noticeable movement of air through the decontamination units. Use the smoke tube to demonstrate air movement from the clean room to the shower room to the equipment to the regulated area.
4. **Use smoke tubes** to demonstrate air is moving air across all areas in which work is to be done. Use a differential pressure gauge to indicate a negative pressure of at least 5.0 Pa (minus 0.02 inch) across every barrier separating the regulated area from the rest of the building. Modify the system as necessary to meet the above requirements.

L. **USE OF THE NEGATIVE PRESSURE SYSTEM DURING ABATEMENT OPERATIONS**:

1. **Start units before** beginning any disturbance of ACM occurs. After work begins, the units shall run continuously, maintaining a minimum of 4 actual air changes per hour at a negative pressure differential of 5.0 Pa (minus 0.02 inch) water column, for the duration of the work until a final visual clearance and final air clearance has been completed.
2. **The negative air** machines shall not be shut down at any time during the duration of the project unless it has been authorized by the AOC/SOHB.
3. **Abatement work shall** begin at a location farthest from the units and proceed toward them. If an electric failure occurs, the Competent Person shall stop all abatement work and immediately begin wetting all exposed asbestos materials for the duration of the power outage. Abatement work shall not resume until power is restored and all necessary units are operating properly again.

4. **The negative air** machines shall continue to run after all work is completed and until a final visual clearance and a final air clearance has been completed for that regulated area.

M. **DISMANTLING THE SYSTEM**: After completion of the final visual and final air clearance has been obtained, the units may be shut down. The units shall have been completely decontaminated, all pre-filters removed and disposed of as asbestos waste, and the unit inlet and outlet sealed with 2 layers of 6 mil poly.

N. **Before the work is begun**, clean all removable items and equipment. Remove them from the work area and store as directed.

O. **Cover all non-removable items** and equipment in the work area with six (6) mil flame retardant plastic sheeting taped securely in place.

P. **When specified,** remove all heating, ventilation, and air conditioning system filters, pack them in sealable double approved disposal bags or containers for disposal in the approved waste disposal site and replace them with new filters upon completion of abatement. Openings created by the removal of HVAC filters shall be sealed using 6 mil plastic sheeting taped securely in place, prior to start of work.

Q. **Post warning signs**: on the primary containment as required by 29 CFR 1910.1001, 29 CFR 1926.1101, ASTM E 849, as directed by District of Columbia Title 20 DCMR, Section 800 "Control of Asbestos" and as directed by the Architect.

R. **Obtain Approval of the Finished Primary Containment** from the Project CIH, prior to starting any actual asbestos removal work.

3.2 **WORK PROCEDURE:**

A. **General Procedures:** The enclosed work areas shall be defined as an asbestos regulated area and all asbestos worker protection and work practices not addressed in this specification shall be performed in conformance with the general safety and health provisions of 29 CFR 1910.1001, 29 CFR 1910.20, and the construction industry standard for asbestos, 29 CFR 1926.1101, respectively. The Project CIH shall review work area air samples and make adjustments for the type of respiratory protection required. For asbestos abatement work, use general work practices, work practices for removal, and work practices for encapsulation as specified in 29 CFR 1926.1101. If a conflict arises, the more stringent application shall apply until a determination is made by the Architect.

B. **PROTECTIVE CLOTHING:** Provide boots, booties, hard hats, goggles, clothing, respirators and any other personal protective equipment as determined by conducting the hazard assessment required by OSHA at 29 CFR 1910.132 (d). Provide all personnel entering the regulated area with disposable full body coveralls, disposable head covering, and 18 inch boot coverings. The Competent Person shall ensure the integrity of personal protective equipment worn for the duration of the project. Provide plastic/rubber disposable gloves for hand protection. Cloth type gloves may be worn under plastic/rubber gloves, but cannot be used alone. Duct tape shall be used to secure all suit sleeves to wrists and to secure foot coverings at the ankle.

C. **Local Exhaust System:** Provide a local HEPA filtered exhaust system in the asbestos control area. The local HEPA filtered exhaust system shall exhaust to the outside of the building. Local HEPA filtered exhaust equipment must be sufficient to maintain a negative air pressure of 0.02 inch of water anywhere in the asbestos control area. In no case shall the building ventilation

system be used as the local exhaust system for asbestos control. Filtering in vacuums and exhaust equipment shall be HEPA filtered equipped and conform to ANSI Z9.2; HEPA filters shall be used in all vacuums and exhaust equipment. NOTE: Approval from the AOC/SOHB is required for all local HEPA filtered exhaust systems that cannot be exhausted directly outside the building. To exhaust an HEPA filtered local exhaust system from an asbestos control area to the inside an AOC building will require the approval of the AOC/SOHB. The HEPA filtered exhaust equipment shall also pass a Dioctylphthalate (DOP) test for HEPA filtered equipment each time a containment that is to be exhausted into the building is erected.

D. **CONTROLLING ACCESS TO THE REGULATED AREA:** Access to the regulated area is allowed only through the personnel decontamination facility (PDF). All other means of access shall be eliminated and OSHA Danger asbestos signs posted as required by OSHA. If the regulated area is adjacent to or within view of an occupied area, provide a visual barrier of opaque fire retardant poly sheeting at least 6 mils thick to prevent building occupant observation. If the adjacent area is accessible to the public, the barrier must be solid and capable of withstanding the negative pressure.

E. **Coordination of Work of all Trades:** Coordinate the work of all trades to assure that their work is performed in accordance with the applicable regulations and that the asbestos control limits are maintained at all times both inside and outside the asbestos work area.

3.3 WET REMOVAL OF ACM OTHER THAN AMOSITE ASBESTOS

A. **Adequately and** thoroughly wet the ACM to be removed prior to removal to reduce/prevent fiber release to the air. Adequate time must be allowed for the amended water to saturate the ACM. Abatement personnel must not disturb dry ACM. Use a fine spray of amended water or removal encapsulant. Saturate the material sufficiently to wet to the substrate without causing excessive dripping. The material must be sprayed repeatedly/continuously during the removal process in order to maintain adequately wet conditions. Removal encapsulant must be applied in accordance with the manufacturer's written instructions. Perforate or carefully separate, using wet methods, any outer covering that is painted or jacketed in order to allow penetration and wetting of the material. Where necessary, carefully remove covering while wetting to minimize fiber release. (Note: In no event shall dry removal occur except when a permit is granted for unavoidable safety hazards.)

B. **If ACM does** not wet well with amended water due to coating or jacketing, remove as follows:

1. **Mist work area** continuously with amended water whenever necessary to reduce airborne fiber levels.
2. **Remove saturated** ACM in small sections. Do not allow material to dry out. As material is removed, place the material, while still wet, into 6-mil poly asbestos waste bags. Twist tightly the bag neck, bend over (gooseneck) and seal with a minimum of three tight wraps of duct tape. Clean/decontaminate the outside of any residue and move to wash down station adjacent to EDF.
3. **Fireproofing or Architectural Finish on Scratch Coat:** Spray with a fine mist of amended water or removal encapsulant. Allow time for saturation to the substrate. Do not over saturate causing excess dripping. Scrape material from substrate. Remove material in manageable quantities and control falling to staging or floor. If the falling distance is over 20 feet (6M), use a drop chute to contain material through descent. Remove residue

remaining on the scratch coat after scraping is done using a stiff bristle hand brush. If a removal encapsulant is used, remove residue completely before the encapsulant dries. Re-wet the substrate as needed to prevent drying before the residue is removed.

4. **Fireproofing or Architectural Finish on Wire Lath:** Spray with a fine mist of amended water or removal encapsulant. Allow time to completely saturate the material. Do not over saturate causing excess dripping. If the surface has been painted or otherwise coated, cut small holes as needed and apply amended water or removal encapsulant from above. Cut saturated wire lath into 2 by 6 feet (50 by 150 mm) sections and cut hanger wires. Roll up complete with ACM, cover in burlap and hand place in disposal bag. Do not drop to floor. After removal of lath/ACM, remove any over spray on decking and structure using stiff bristle nylon brushes. Depending on hardness of over spray, scrapers may be needed for removal.
5. **Pipe Insulation:** Remove the outer layer of wrap while spraying with amended water in order to saturate the ACM. Spray ACM with a fine mist of amended water or removal encapsulant. Allow time to saturate the material to the substrate. Cut bands holding pre-formed pipe insulation sections. Slit jacketing at the seams, remove and hand place in a disposal bag. Do not allow dropping to the floor. Remove molded fitting insulation/mud in large pieces and hand place in a disposal bag. Remove any residue on pipe or fitting with a stiff bristle nylon brush. In locations where pipe fitting insulation is removed from fibrous glass or other non-asbestos insulated straight runs of pipe, remove fibrous material at least 6 inches from the point it contacts the ACM.

3.4 WET REMOVAL OF AMOSITE ASBESTOS

A. **Amosite ACM** will require local exhaust ventilation and collection, as described below, in addition to wet removal. Provide specific description /locations/drawings.

B. **Provide local** exhaust ventilation and collection systems to assure collection of amosite fibers at the point of generation. A 12-inch flexible rigid non-collapsing duct shall be shall be located no more than 2 feet from any scraping/brushing activity. Primary filters must be replaced every 30 minutes on the negative air machines. Each scraping/brushing activity must have a negative air machine devoted to it. For pre-molded pipe insulation or cutting wire lathe, attach a 4-foot square flared end piece on the intake of the duct. Support the duct horizontally at a point 2 feet below the work to effect capture. One person in the crew shall be assigned to operate the duct collection system on a continual basis.

C. **Amosite asbestos** does not wet well with amended water. Submit full information and documentation on the wetting agent proposed prior to start for review by the AOC/SOHB representative. Insure that the material is worked on in small sections and is thoroughly and continuously wetted. Package immediately after removal while wet. Remove as required.

3.5 REMOVAL OF ACM/DIRT FLOORS AND OTHER SPECIAL PROCEDURES

A. **MAJOR ABATEMENT ON DIRT FLOORS:**

When working on dirt floors, pick up all chunks of visible asbestos debris using wet methods if possible after set-up of PDF, EDF, negative air systems as required. Perform work and decontaminate/clean-up; perform lock-down as needed and complete work as required under

these specifications. The asbestos contaminated soil (ACS) shall be removed, encapsulated, and enclosed.

1. **Remove ACS** to a minimum depth of 2 inches. After wetting to minimize dust, shovel dirt into disposal bags. The Project CIH shall closely monitor work conditions and take appropriate action to protect workers from exposure to asbestos and heat stress. The minimum number of air changes per hour shall be six using negative air machines.
2. **The Contractor** has the option to encapsulate soil. A test area of a minimum of 100 sq. ft. must be performed to determine feasibility. Provide a written proposal for encapsulation to the AOC/SOHB representative with test results; recommendation from the manufacturer; a guarantee of performance for 10 years; and any limitations of application. The AOC reserves the right to accept or reject the application proposal with no effect on the contract. If approved, the application and supervision must be done by persons certified by the manufacturer as trained and experienced personnel as evidenced by documentation of such.
3. **Enclosure of ACM** using a concrete layer of 2 inches over the entire surface may also be done. Thoroughly dampen soil first before pouring concrete. Personnel shall be proficient in concrete laying as well as asbestos trained.

3.6 NEGATIVE PRESSURE GLOVEBAG METHOD OF ASBESTOS REMOVAL:

A. **General:** If specifically permitted, the glovebag method may be used for removing pipe insulation on a case by case basis. Approval from the AOC/SOHB, to use this method is required. The Project CIH will determine what personal decontamination procedures are required. Respiratory protection and disposable clothing are required. Discard the clothing in accordance with paragraph Disposal of friable asbestos.

B. **Procedure:** Install the glovebag and negative pressure equipment following all procedures outlined in OSHA's 29 CFR 1926.1101.

C. **Removal and Disposal of Glovebags:** Removal of glovebags shall be in accordance with 29 CFR 1926.1101. Dispose of glovebags, material, and contaminated equipment in accordance with paragraph Disposal of Friable Asbestos.

3.7 SMALL SCALE SHORT DURATION PROJECTS - USE OF MINI-ENCLOSURE SYSTEM

A. **General:** If specifically permitted, a mini-enclosure system may be utilized for projects of short duration where there is less than three (3) square or three (3) linear feet of asbestos to be disturbed. A mini-enclosure system is defined as any portable system capable of performing small scale short duration projects equipped with all aspects of a full containment. This includes, but is not limited to the following components: negative air pressure, shower or water-tank facilities, HEPA vacuums, and polyethylene sheeting barriers. This work is best performed on flat ceiling surfaces, however it can be applied to horizontal wall surfaces. Use of this system is applicable to the following activities:

1. Access above asbestos containing lay-in ceilings
2. Wall channeling
3. Removal of light fixtures in plaster ceilings to access ceiling spaces
4. Changing light fixtures

5. Removal of ceiling tiles to access ceiling spaces
6. Impact or repair to asbestos ceiling plaster (e.g., hanging conduit or other such projects necessitating disturbance to the asbestos surfaces)
7. Removal of duct mastic
8. Removal of transite asbestos panel boards

B. **Procedure**: Utilize a negative pressure mini-enclosure system for this work. This process will follow all procedures outlined in OSHA's 29 CFR 1926.1101. The following steps are to be when performing this work:

1. **Preliminary setup:** Seal all critical barriers (e.g., doors, windows, vents) in the work area. Place OSHA warning signs as necessary facing outward on perimeter doors. Pre-clean area beneath work by wet wiping and HEPA vacuuming. Place drop cloth on surfaces below work and seal ir to floor with duct tape. Disconnect, as necessary, the electric and lock out power to breaker. Check and pressurize water within holding tanks, and nozzles on the enclosure system. Provide ground-fault protection for other outlets.
2. **Preliminary Inspection:** Project CIH will inspect area prior to commencement of work. Verify that all preliminary set-up procedures, as stated above, have been completed. Verify that all filters are properly positioned in HEPA vacuums and negative air machines (NAM). Verify all equipment is operating properly. Review, with contractor, the CIH Approved Plan of Action specified in "Submittals" in Part 1 of this specification.
3. **Work Procedures:** Workers will don two (2) suits, gloves and appropriate respiratory protection in accordance with 29 CFR 1910.134. Workers will activate the negative air system associated with the mini-enclosure. The workers, in accordance with all applicable Federal and District of Columbia regulations, will perform necessary removal and/or encapsulation of asbestos containing material. Non-asbestos containing material to be salvaged, as stated in scheduled work plan, shall be properly decontaminated prior to its removal from the work area.
4. **Waste Removal:** All asbestos containing materials shall be sufficiently wet and placed in bags, drums, or other approved and labeled disposal containers. All waste disposal containers shall be properly decontaminated. Disposal shall be performed as specified in "Cleanup and Disposal" below.
5. **Decontamination Procedures:** Thoroughly clean via wet wiping and HEPA vacuuming all surfaces within the mini-enclosure so that no visible residue remains. Workers will decontaminate by HEPA vacuuming the outer protective suit. Workers will reinspect the area for visible residue, clean as necessary, then decontaminate the inner protective suit. Once entire area is completely decontaminated, the workers may remove and properly dispose of the second suit and shower. Once showered, the worker may exit the mini-enclosure system and remove respiratory protection. If a remote shower facility is utilized, the workers shall follow the same procedure as stated above, however, the second suit shall be removed upon entering the remote shower facility.
6. **Final Visual Inspection:** Once all work for the specified area has been completed and workers have exited the mini-enclosure system, the Project CIH will enter the enclosure system to perform a final visual inspection to insure that there is no visible residue and all work has been completed.
7. **Final Air Sample Clearance:** The following final clearance sampling procedure shall be followed for mini-enclosure systems. If the work area passes final visual inspection, a final clearance air sample shall be conducted by the Project CIH inside the mini-enclosure system. The clearance air sample will have a total volume of at least 1200 liters of air and

shall be analyzed by Phase Contrast Microscopy (PCM) following the NIOSH 7400 method A rules. This sample shall be read on-site by the Project CIH. Upon failure of the clearance sample by PCM analysis, another sample shall be conducted and analyzed by Transmission Electron Microscopy (TEM) and submitted to an accredited laboratory with all extra cleaning and sampling at no cost to the Government.

8. **Post-Clearance:** Upon clearance of the mini-enclosure system both by visual and air sampling, the system can be used at another location, leaving the previous work area non-hazardous for other trades to perform routine work.

3.8 QUALITY CONTROL:

A. **Monitoring:** Monitoring of airborne concentrations of asbestos shall be in accordance with 29 CFR 1910.1001, 29 CFR 1926.1101, ASTM E 849, and this specification.

1. **Monitor the airborne concentration** of asbestos before constructing the containment work area, to obtain a baseline fiber concentration in the affected areas. If the baseline air monitoring results, exceeds 0.01 f/cc immediately notify the AOC/SOHB.
2. **Monitor continuously** during the course of the work inside the asbestos work area and other areas as directed by the Project CIH's air sampling strategy. In addition to that sampling strategy, and at a minimum, perform daily monitoring outside the entrance to the asbestos work area, along each perimeter wall of the containment and at the exhaust opening of the local exhaust system. If monitoring shows airborne concentrations greater than the asbestos control limits permitted by this specification, immediately stop all work, and notify the AOC/SOHB. Work shall not be restarted without approval of the Project CIH and the AOC/SOHB.
3. **In addition,** monitor the airborne concentrations of asbestos after final cleanup and removal of the enclosure of the asbestos control area in accordance with paragraph "Final Cleanup and Removal of Enclosures."

B. **Site Inspection and Stop Work Orders:** While performing asbestos abatement work, the Contractor shall be subject to on site inspection by agency officials or agency contracted inspection services. Work shall also be subject to inspection by OSHA and EPA inspectors and/or local building or health officials. If found to be in violation by one of these officials, the Contractor shall cease all work immediately. Until the violation is resolved, standby time required to resolve the violation shall be at the Contractor's expense. Five complete sets of equipment (such as respirators and disposable clothing) required for entry to the asbestos control area shall be available for inspectors use.

3.9 CLEANUP AND DISPOSAL:

A. **Permits and Notifications:** Secure necessary permits in conjunction with asbestos removal, hauling and disposition and provide timely notification of such actions, as may be required by Federal, state, regional, and local authorities. When required by regulation, ensure that notification to the Regional Office of the EPA and the responsible agency for the District of Columbia is made,; provide copies of the notification to the AOC/SOHB 20 days prior to the commencement of the work. Provide notification in accordance with 40 CFR 61.22(d)(1).

B. **Housekeeping:** Essential parts of asbestos dust control are housekeeping and cleanup procedures. All surfaces throughout the containment work area shall be maintained free of

accumulations of asbestos fibers to prevent further dispersion. Give meticulous attention to restricting the spread of dust and debris, keep waste from being distributed over the general area. Use approved industrial vacuum cleaners with a HEPA filters to collect dust and small scrap. The use of compressed air is forbidden. Post appropriate asbestos hazard warning signs. At the end of each work shift, the containment area shall be cleaned. Equip personnel engaged in cleaning up asbestos scrap and waste with necessary respiratory equipment and protective clothing.

C. **Disposal of Friable Asbestos:** Collect and dispose of friable asbestos waste, scrap, debris, bags, containers, equipment, and asbestos-contaminated clothing which may produce airborne concentrations of asbestos fibers in disposal bags or containers approved as specified in Part 1 above for post-award submittals. Prior to placing in bags or containers, thoroughly wet down asbestos wastes to reduce airborne concentrations. All asbestos waste shall be double bagged, wrapped or contained in accordance with 40 CFR Subpart M. At the end of each work shift, all waste asbestos materials shall be removed from the containment. Obtain approval from the AOC/SOHB and affected AOC building Superintendent's office, when the removal of the containerized asbestos waste is scheduled from the containment area. The contractor shall make arrangements for the transportation and disposal of all asbestos waste generated under this specification in accordance with all Federal regulations at a sanitary landfill that meets EPA requirements. The Contractor will provide the AOC/SOHB with a copies of all Waste Shipment Records, hauler's receipts, and landfill receiving tickets resulting from the disposal of the asbestos waste as specified in Part 1 above for disposal receipt submittals. Establishment of any on-site temporary holding area for properly packaged asbestos waste must have prior approval from the AOC/SOHB. At no time shall the Contractor receive any asbestos-containing waste from other jobs, compliance inspectors or other sources without prior approval from the AOC/SOHB.

D. **Final Cleanup:** The Contractor shall notify the AOC/SOHB and the Project CIH that the work area is ready for final inspection. The Project CIH shall inspect the work area prior to performing final air sampling. Visual observation of asbestos materials, dust or debris is not permitted on any surface in or around the work area. Clean work area in accordance with EPA approved methods. Once the visual observation is satisfied apply a lock down encapsulant.

E. **Lock down encapsulation:** Lock down encapsulation is an integral part of the ACM removal. At the conclusion of ACM removal and before final air sampling, all surfaces shall be encapsulated with a lock down encapsulant. Apply two coats of encapsulant in strict accordance with the manufacturer's instructions. Any deviation from the instructions must be approved by the AOC's representative in writing prior to commencing the work. Apply the first coat of encapsulant with an airless sprayer at a pressure and using a nozzle orifice as recommended by the manufacturer. If the surface has been allowed to dry, wet wipe or HEPA vacuum prior to spraying with encapsulant. Apply a second coat over the first coat in strict conformance with the manufacturer's instructions. Color the encapsulant and contrast the color in the second coat so that visual confirmation of completeness and uniform coverage of each coat is possible. Adhere to the manufacturer's instructions for coloring. At the completion of the encapsulation, the surface must be a uniform third color produced by the mixture.

1. **EXPOSED EDGES**: Seal edges of ACM exposed by removal work such as ACM left due to being outside the scope of work for this contract, or is inaccessible such as a sleeve or wall penetration, with one coat of penetrating encapsulant and one coat of bridging

encapsulant. Prior to sealing, permit the exposed edges to dry completely in between the coats to permit penetration of the encapsulant.

F. **Final Air Sampling:** Perform air sampling for clearance purposes using a minimum of two (2) Transmission Electron Microscopy (TEM) air samples for each 2500 square feet of containment area. Repeat the decontamination and testing process until asbestos concentration levels are less than 0.01 s/cc (NIOSH 7402 method) or 70 S/mm^2 (AHERA). Copies of the TEM air sample results are to be faxed to the District of Columbia Department of Health, Air Quality Division.

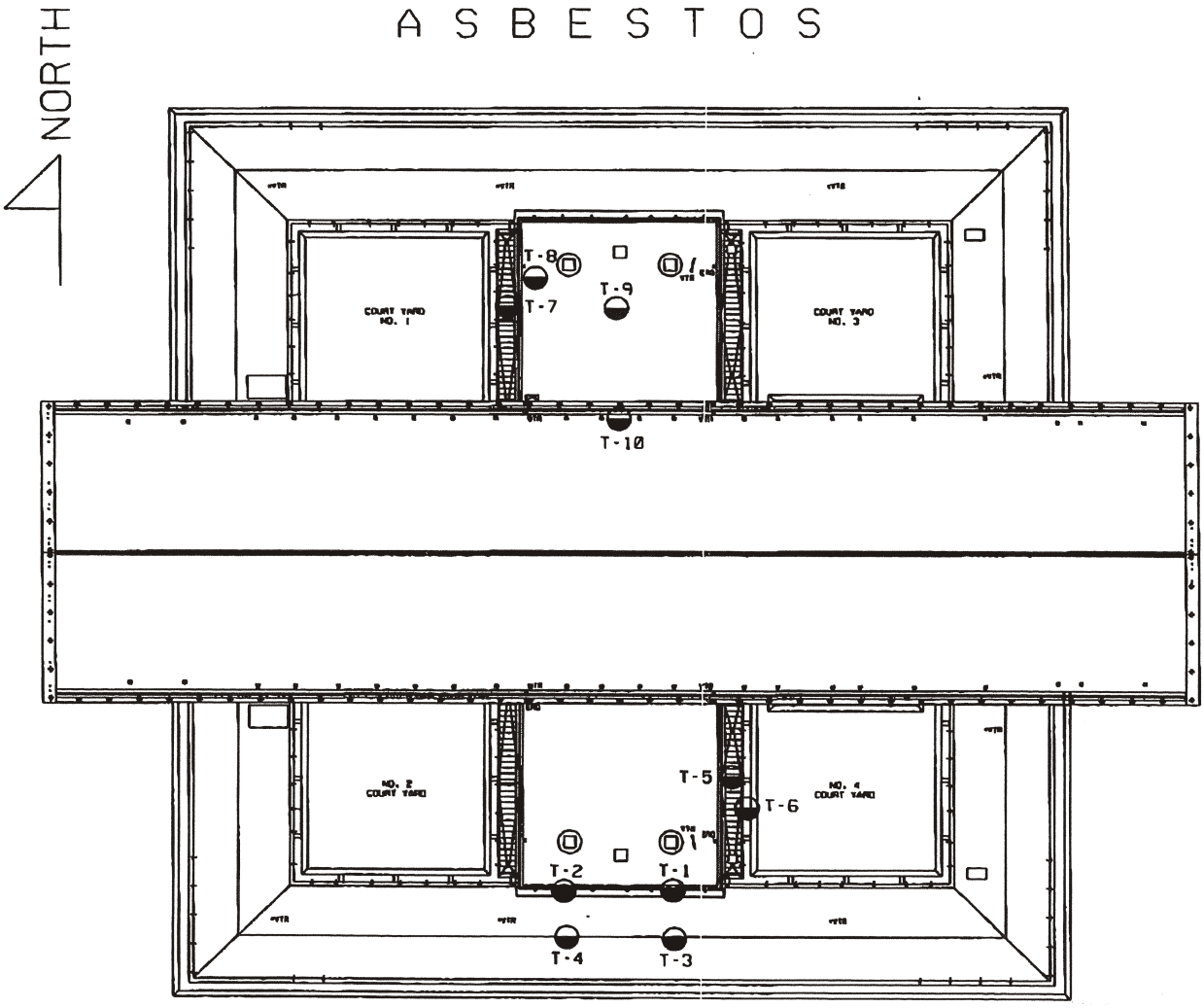
G. **Removal of Enclosure:** If asbestos concentrations do not exceed 0.01 s/cc or 70 S/mm^2, contact the AOC/SOHB for authorization for the removal of the enclosure. Ensure that copies of the TEM air sample results are telefaxed to the District of Columbia Department of Health, Air Quality Division.

H. **Re-Occupancy Inspection:** The Contractor shall notify the AOC/SOHB and the Project CIH that the work area is ready for re-occupancy inspection. The Project CIH, shall inspect the work area after removal of the enclosure and shall ensure that no visible debris is observed. If visible debris is observed, the Contractor shall clean the work area as directed by the Project CIH, in accordance with EPA approved methods until no visible debris are observed. The Project CIH shall provide verbal re-occupancy approval to the AOC/SOHB immediately after this inspection. Documentation of the re-occupancy inspection shall be provided to the AOC/SOHB within 24 hours after approving an area for re-occupancy.

END OF SECTION 13281

See attached: ROOF PLAN - ROOF SAMPLES ASBESTOS
LIST OF ROOF SAMPLES (ASBESTOS)

UNITED STATES
SUPREME COURT
ROOF SAMPLES
A S B E S T O S



	A	B	C	D	E	F	G
1			**Supreme Court Roof Samples (Asbestos)**				
2							
3	**Sample Number**	**Location**	**Material**	**Color**	**Result**	**Asbestos**	**COC**
4							
5	04140501 A	low roof south gutter T-1	Material on Copper	Gray	NAD	No	122105
6	04140501 B	low roof south gutter T-1	Light Concrete	Gray	NAD	No	122105
7	04140501 C	low roof south gutter T-1	Light Concrete	Gray	NAD	No	122105
8	04140501 D	low roof south gutter T-1	Mastic	Gray	NAD	No	122105
9	04140501 E	low roof south gutter T-1	Tar	Black	NAD	No	122105
10	04140502 A	low roof south gutter T-2	Light Concrete	Off-white	NAD	No	122105
11	04140502 B	low roof south gutter T-2	Light Concrete	Beige	NAD	No	122105
12	04140502 C	low roof south gutter T-2	Felt	Black	NAD	No	122105
13	04140502 D	low roof south gutter T-2	Copper Backing	Gray	NAD	No	122105
14	04140502 E	low roof south gutter T-2	Material on Copper	Gray	NAD	No	122105
15	04140502 F	low roof south gutter T-2	Caulk	Off-white	NAD	No	122105
16	04140503 A	peak south low roof T-3	Light Concrete	Gray	NAD	No	122106
17	04140503 B	peak south low roof T-3	Tar under Copper	Black	NAD	No	122106
18	04140503 C	peak south low roof T-3	Concrete	Gray	NAD	No	122106
19	04140503 D	peak south low roof T-3	Material on Copper	Gray	NAD	No	122106
20	04140504 A	peak south low roof T-4	Light Concrete	Gray	NAD	No	122104
21	04140504 B	peak south low roof T-4	Caulk	Gray	NAD	No	122104
22	04140504 C	peak south low roof T-4	Light Concrete	Gray	10 % Chrysotile	Yes	122104
23	04140505 A	East Patio Deck T-5	Concrete	Gray	NAD	No	122104
24	04140505 B	East Patio Deck T-5	Tar filler	Black	NAD	No	122104
25	04140505 C	East Patio Bottom T-5	Felt	Black	NAD	No	122104
26	04140505 D	East Patio T-5	Lower Caulk	Gray	NAD	No	122104
27	04140505 E	East Patio T-5	Tile floor	Red	NAD	No	122104
28	04140505 F	East Patio Under Red Tile		Black	NAD	No	122104
29	04140505 G	East Patio T-5	Lower Caulk	Gray	NAD	No	122104
30	04140505 H	East Patio T-5	Bottom Tar	Black	NAD	No	122104
31	04140505 I	East Patio Floor T-5	Concrete	Gray	2 % Chrysotile	Yes	122104
32	04140505 J	East Patio Floor T-5	Concrete	Gray	NAD	No	122104
33	04140506 A	East patio wall T-6	Caulk	Off-white	NAD	No	122106
34	04140506 B	East patio wall T-6	Caulk	Gray	NAD	No	122106
35	04140506 C	East patio wall T-6	Packing	Gray	NAD	No	122106
36	04140507 A	West Patio T-7	Material under Membrane	Black	NAD	No	122105
37	04140508 A	North Flat Roof T-8	Silver Paint	Silver	2 % Chrysotile	Yes	122106
38	04140508 B	North Flat Roof T-8	Silver Paint	Silver	3 % Chrysotile	Yes	122106
39	04140509 A	North Flat Roof T-9	Felt	Black	NAD	No	122107
40	04140509 B	North Flat Roof T-9	Coal Tar Pitch	Black	NAD	No	122107
41	04140509 C	North Flat Roof T-9	Concrete	Gray	NAD	No	122107
42	04140509 D	North Flat Roof T-9	Concrete	Gray	NAD	No	122107
43	04140509 E	North Flat Roof T-9	Felt	Black	NAD	No	122107
44	04140510 A	North High Roof T-10	Concrete	Gray	NAD	No	122106
45	04140510 B	North High Roof T-10	Tar and Felt	Black	NAD	No	122106
46							
47	NAD = No Asbestos Detected						

SECTION 13912 - FALL PROTECTION SAFETY SYSTEM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes fall protection systems and related appurtenances.

B. Related Sections include the following:
   1. Division 5 Section "Miscellaneous Metals."
   2. Division 7 Sections "Roof Repair."

1.3 REFERENCES

A. Occupational Safety and Health Administration (OSHA)
   1. Part 1910 Occupational Safety and Health Standards.
   2. Part 1926 Safety and Health Regulations for Construction

B. American Society for Testing Materials (ASTM)

C. American National Standards Institute (ANSI)
   1. Z359.1-1992: Safety Requirements for Personal Fall Arrest systems, subsystems, and components.
   2. A10.14-1991: Requirements for Safety Belts, Harnesses, Lanyards and Lifelines for Construction and Demolition use.

1.4 SYSTEM DESCRIPTION

A. The Fall Protection System shall allow the user to walk uninterrupted the entire length of the system and provide secure anchorage to arrest a fall by the user. The "system" shall be defined as an uninterrupted length of horizontal lifeline between two entry terminals. All essential components shall be included as part of the above referenced system, though not specifically stated in the following Specifications, so as to provide a complete and fully operational system.

B. "The system shall be designed to arrest two (2) concurrent falls with working loads of 900 lbs. each plus one static load of 310 lbs. for a total working load of 2110 lbs. The minimum factor of safety for the system components shall be 2:1. The horizontal lifeline shall be capable of resisting a minimum working tensile load of 3400 lbs. with a factor of safety of 3:1.

1.5 SUBMITTALS

A. Submit the following in accordance with the Conditions of the Contract and Division 1 Specifications Sections:
   1. Product Data: Manufacturer's data and project information for manufactured materials and products.
   2. Shop Drawings: For fabrication and erection. Include plans, member profiles, sizes, elevations, and details for anchorages and connections.
   3. Operations and Maintenance Manual: Indicating parts list and maintenance requirements for all equipment, indicating proper procedures and equipment for safe operation of the system.
   4. Experience Information: Including type of fall protection system, location and date of installation and Owner's name and address.
   5. Test Certificate: Indicating completion of proof load testing of installed system.
   6. Structural Design: Provide complete structural design analysis, structural loading and calculations for system.
   7. Life Cycle: Provide manufacturer's recommended life cycle.
   8. Samples: (2) two each of all component parts.

1.6 QUALITY ASSURANCE

A. In order to assure uniform quality, ease of maintenance and minimal parts storage, it is the intent of these Specifications that all equipment called for under this Section shall be supplied by a single source. The equipment supplier shall, in addition to the CONTRACTOR, assume the responsibility for proper and complete installation.

B. No equipment shall be supplied by any manufacturer not regularly engaged in the manufacturing and production of fall protection systems. The manufacturer must have installed and had in satisfactory use a minimum of four (4) installations of the size and type comparable to the unit specified.

1.7 DELIVERY, STORAGE AND HANDLING

A. Deliver materials in manufacturer's original, unopened protective packaging.

B. Store material in original protective packaging. Prevent soiling, physical damage or wetting.

1.8 PROJECT CONDITIONS

A. Field Measurements: Perform prior to preparation of Shop Drawings and fabrication drawings to ensure required fit and dimensions.

PART 2 - PRODUCTS

2.1 MATERIALS

A. All materials shall be new, and complete fall protection system, except for accessory equipment, shall be essentially the product of one manufacturer regularly engaged in the production of such equipment.

B. Stainless Steel Plates and Bars: ASTM A666, Type 304 or 316.

C. Fasteners: The Fall Protection System shall be attached to the supporting structure with appropriate fasteners. The fasteners shall be designed to support the loads on the Fall Protection System as indicated without failure. See Specification Section 05500 "Metal Fabrications" for fastener requirements.

2.2 FABRICATION

A. General
1. Fall Protection System components shall be of the same material unless otherwise indicated.
2. Exposed work shall be true to line and level with accurate angles, surfaces and with straight square edges.
3. Coordinate anchorage system with supporting structure. Fabricate anchoring devices as recommended by manufacturer to provide adequate support for intended use.
4. Fabricate joints in a manner to discourage water accumulation. Provide weep holes to drain any water which could accumulate in the exposed joints.

2.3 SYSTEM DESIGN

A. Fall Protection System shall be designed as previously described and, all components shall be designed by the fall protection system supplier and shall meet the applicable requirements of ANSI A10.14 and Z359.1.

B. Description
1. Horizontal Fall Protection System shall consist of a stainless steel safety cable attached to the structure. The cable shall be continuous or shall have swaged splices, which allow the user to pass without unhooking from the system.
2. The cable shall have a stainless steel entry terminal, swaged to the cable, at each end of the cable with a plastic spring gate.
3. A stainless steel line tension device and turnbuckle will be provided at one or both ends. Provide stainless steel end brackets to attach the cable to the structure.
4. Support cable and secure to existing structure components and assemblies as requited to meet specified requirements (not to exceed 30 foot maximum intervals) with stainless steel "D" rings and hangers designed to allow the user to pass without unhooking from the cable.
5. Provide twenty-four (24) stainless steel lanyard coupler devices with connector eye. The coupler device shall be able to be hooked and unhooked at the entry terminals and be able to pass intermediate cable supports and splices without having to be detached.
6. Brackets and supports shall be attached to the structure with appropriate anchors of proper size and embedment, as per 2.1 C., to adequately support the loaded.
7. System shall be tensioned to 180 lbs. allowing no sag in the stainless steel cable.

2.4 ACCEPTABLE PROCUCTS

A. Mansafe Fall Arrest System as manufactured by Latch ways, LTD and distributed by Fall Arrest Systems, Inc. 3980 Varsity Drive, Ann Arbor, Michigan 48108, 1-800-325-6746.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install in accordance with approved shop drawings and manufacturer's instruction.

B. Fall Protection System shall be installed under the direction of manufacturer's authorized trained personnel.

C. Install anchorages as indicated and fasteners in accordance with manufacturer's recommendations to obtain the allowable working loads published in the product literature and in accordance with this specification.
   1. Do not load or stress fall protection system until all materials and fasteners are properly installed and ready for service.
   2. Anchorages Drilled into Concrete.
      a. Follow manufacturer's recommendations
      b. Do not cut or damage reinforcement
      c. Clean drill hole and remove debris and contaminants in accordance with manufacturer's instructions.
      d. Install anchorages at indicated locations, clearances and embedment depth.
      e. When clearance and spacing of anchorage is not indicated on drawings, install at location recommended by manufacturer to obtain maximum working loads and in accordance with the following:
         1) Anchorage clearance to Edge of Concrete: Not less than 7 bolt diameters.
         2) Anchorage Spacing Center to Center: Not less that 10 bolt diameters.
      f. When embedment length is not indicated on drawings, install with embedment depth not less than 6 bolt diameters.

3.2 FIELD QUALITY CONTROL

A. After the Fall Protection System is installed and properly tensioned, the Fall Protection System manufacturer's approved authorized representative shall inspect and operate the system and shall make all final adjustments for proper operation.

B. After the system has been placed into operation, the manufacturer's authorized representative shall perform proof testing and issue a certificate to the system's ability to withstand the proof test load.

3.3 OPERATOR TRAINING

A. Provide operator training after the system has been installed and proof tested. Training is to take the form of a single class conducted at the installation site. The Government representative will determine the class participants.

3.4 CLEANING

A. Remove all loose materials, crating and packing material from premises.

END OF SECTION 13912

SECTION 14430 - TELESCOPIC MANLIFT

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:
   1. Custom manufactured, pre-engineered, powered telescopic manlifts.

B. elated Sections include the following:
   1. Section 07500 - "Roofing System Repairs" for flashing and counterflashing.
   2. Section 13912 - "Fall Protection Safety System" for tie-off points for secondary fall protection.
   3. Division 16 Sections for electrical service to lifts, including fused disconnect switches and controls.

1.2 SUBMITTALS

A. Product Data: For each type of lift indicated. Include rated capacities, dimensions, performances, operations, safety features, controls, and finishes.

B. Shop Drawings: For each lift, include plans, elevations, sections, details, and attachments to other Work. Indicate loading on structure and required clearances.

C. Samples: For each type of exposed finish and for control devices; 3 inches square for sheet materials; and 4 inches long for running-trim members.

D. Certificates and Permits: Provide the Government with inspection and acceptance certificates and operating permits, as required by authorities having jurisdiction, for normal, unrestricted use of lifts.

E. Maintenance Data: For each type of lift to include in maintenance manuals. In addition to items specified in Section 01000 -"General Requirements," include parts list with sources indicated and recommended parts inventory list.

F. Operation and Control Manual: For each type of lift provide an Operation and Control Manual that includes instructions for proper use and operation of lifts, and emergency provisions, including emergency access and procedures to be followed at time of operational failure and other building emergencies.

G. Qualification Data: For manufacturer and Installer.

1.3 QUALITY ASSURANCE

A. Installer Qualifications: Lift manufacturer or a qualified installer approved by lift manufacturer who has completed lift installations similar in material, design, and extent to that indicated for this Project and with a record of successful in-service performance.

B. Manufacturer Qualifications: Capable of assuming engineering responsibility and performing Work of this Section.

1. Engineering Responsibility: Preparation of data for manlift system including the following:
    a. Shop Drawings based on engineering analysis of manufacturer's products in assemblies similar to those indicated for this Project.
    b. Design of attachment of manlift base to concrete slab.
    c. Project-specific comprehensive engineering analysis by a qualified professional engineer.

C. Product Options: Information on Drawings and in Specifications establishes requirements for the system's size configuration and performance characteristics. Configuration is indicated by dimensions, and arrangements of components and assemblies as they relate to one another and to adjoining construction. Performance characteristics are indicated by criteria subject to verification by in-service performance.

D. Regulatory Requirements: In addition to requirements of authorities having jurisdiction, comply with ANSI 92.6 "Elevated Work Platforms", and 29 CFR 1910, Subpart D, "Powered Platforms, Manlifts, and Vehicle-Mounted Work Platforms".

E. OSHA Regulatory Requirements: Comply with OSHA Regulations (Standards - 29 CFR, Material hoists, personnel hoists, and elevators, - 1926.552). The employer shall comply with the manufacturer's specifications and limitations applicable to the operation of all hoists and elevators. Where manufacturer's specifications are not available, the limitations assigned to the equipment shall be based on the determination of a professional engineer competent in the field.

1.4 WARRANTY

A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair, restore, or replace defective work within specified warranty period.
    1. Warranty Period for Major Weldments, (chassis, turret, and booms): (5) years after the original shipment of the aerial work platform from the plant.
    2. Warranty Period for all other parts: (1) year after the original shipment of the aerial work platform from the plant.

1.5 MAINTENANCE SERVICE

A. Initial Maintenance Service: Beginning at Substantial Completion, provide 12 months' full maintenance by skilled employees of lift Installer. Include quarterly preventive maintenance, repair or replacement of worn or defective components, lubrication, cleaning, and adjusting as required for proper lift operation at rated speed and capacity. Provide parts and supplies same as those used in the manufacture and installation of original equipment.

B. Continuing Maintenance Service: Provide a continuing maintenance proposal from Installer to Owner, in the form of a standard yearly (or other period) maintenance agreement, starting on date initial maintenance service is concluded. State services, obligations, conditions, and terms for agreement period and for future renewal options.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Basis-of-Design Product: The design for the custom designed powered telescopic manlifts is based on products manufactured by MLE. Subject to compliance with requirements, provide a custom product manufactured by MLE or by a comparable manufacturer, as approved by the Architect. Comply with requirements in Section 01000 - "General Requirements" for submissions of approved equals.

1. MLE
   5707 S. Pennsylvania Avenue
   Cudahy, WI 53110
   tel: (414) 486-1760
   fax: (414) 486-1763
   www.manliftengineering.com

2.2 MATERIALS

A. Steel Plates, Shapes, and Bars: ASTM A 36/A 36M.

B. Steel Tubing: ASTM A 500.

C. Steel Pipe: ASTM A 53/A 53M; standard weight (Schedule 40), unless otherwise indicated or required by structural loads.

D. Carbon-Steel Sheet: Either cold-rolled steel sheet, ASTM A 366/A 366M, or hot-rolled steel sheet, ASTM A 569/A 569M.

E. Galvanized Steel Sheet: ASTM A 653/A 653M, G90 zinc coating,

F. Aluminum: Alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated, and with not less than the strength and durability properties of alloy and temper designated below for each aluminum form required.

1. Extruded Aluminum: ASTM B 221, alloy 6063-T6.
2. Aluminum Sheet: ASTM B 209, alloy 5005-H15.

G. Stainless-Steel Bars and Shapes: ASTM A 276, Type 304.

H. Stainless-Steel Tubing: ASTM A 554, Grade MT-304.

I. Stainless-Steel Sheet, Strip, Plate, and Flat Bar: ASTM A 666, Type 304.

J. Stainless-Steel Floor Plate: ASTM A 793.

K. Inserts: Furnish required concrete and masonry inserts and similar anchorage devices for installing structural members, guide rails, machines, and other lift components.

L. Expansion Anchors: Anchor-bolt-and-sleeve assembly of material indicated below with capability to sustain, without failure, a load equal to 10 times the load imposed as determined by testing per ASTM E 488 conducted by a qualified independent testing agency:

1. Material: Group 1, alloy 304 or alloy 316, stainless-steel bolts and nuts complying with ASTM F 593 and ASTM F 594.

M. Nonshrink, Nonmetallic Grout: Factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107.

2.3 TELESCOPIC MANLIFT

A. Systems and Machinery: Manufacturer's pre-engineered lift systems as indicated on the drawings and as follows:

1. Platform Size: 36 by 60 inches
2. Platform height -elevated: 25 feet
3. Platform height - lowered: 18 inches
4. Overall height (in lowered position): 9'-6"
5. Platform capacity: 500 lbs.
6. Gross weight: 2000 lbs.
7. Lift Speed: Minimum 0.42 ft/sec (25 ft/min).
8. Power Unit:
   a. 208/240/480, (3) phase, AC
   b. 10 horsepower
   c. 5 gpm @ 2500 psi
9. Controls at ground and platform:
   a. Raise
   b. Lower
   c. Pump engage
   d. Emergency stop
   e. Extend platform to roof edge on 2 sides.
10 .System Control Voltage: 24-V AC.

B. Manual Lowering: Provide means to manually lower units in case of malfunction or power loss.

C. Concealed Wiring: Enclose wiring within housings of units. Do not use conduit exposed to view.

D. Self-Supporting Units: Support vertical loads of units only at base. Attachment to building for lateral support is not permitted.

E. Platform: 0.25-inch- thick, stainless-steel checkered plate.

F. Platform Sides: Rectangular stainless-steel-tube frames with stainless-steel balusters.

G. Platform Operation: Size as indicated above, fixed, non-operational. Two additional operational platforms shall be provided that hydraulically extend approximately 3'(feet) over the existing roof and parapet. Platform locations as indicated on the drawings. Platforms shall be provided with railings, safety chains and lanyard tie-off points. Railings shall lock in place in the open position. Materials and finish shall be the same as the fixed, non-operational platform.

H. Safety Interlock: System shall be designed so the lift will not raise or lower the platform if the operational platforms and railings are extended.

2.4 FINISHES

A. General: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

B. Steel and Iron Finishes: Prepare and finish iron and steel, including galvanized steel, as follows:
1. Prepare uncoated ferrous-metal surfaces to comply with SSPC-SP 3, "Power Tool Cleaning," or SSPC-SP 6/NACE No. 3, "Commercial Blast Cleaning," followed by a conversion coating of type suited to organic coating applied over it.
2. Prepare galvanized steel surfaces by removing dirt, grease, and other contaminants followed by a conversion coating of type suited to organic coating applied over it. Clean welds, mechanical connections, and abraded areas, and apply galvanizing repair paint to comply with ASTM A 780.
3. Liquid-Coated Finish: Immediately after cleaning and pretreating, apply urethane primer and polyurethane top coat to a film thickness not less than 3 mils.
a. Color and Gloss: As selected by Architect from manufacturer's full range.

2.5 WARNING SIGN

A. Provide a warning sign, designed for exterior use, mounted on the man-lift in a location as to be directly visible from the control panel. The sign is to state that the following:

"MAN-LIFT IS NOT TO BE OPERATED IN WINDS GREATER THAN 20 MILES PER HOUR"

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine installation areas, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance.
1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. General: Comply with manufacturer's written installation instructions applicable to products and applications indicated, except where more stringent requirements apply.

B. Lubricate operating parts of lift, including drive mechanism, guide rails, gates, safety devices, and hardware.

3.3 FIELD QUALITY CONTROL

A. Acceptance Testing: On completion of lift installation and before permitting use of lifts, perform acceptance tests as required and recommended by governing regulations and agencies.

B. Operating Test: In addition to above testing, load lifts to rated capacity and operate continuously for 30 minutes between lowest and highest landings served. Readjust stops and other devices and signal equipment for operation of system.

C. Advise Architect, and authorities having jurisdiction in advance of dates and times tests are to be performed on lifts.

3.4 DEMONSTRATION

A. Instruct the government's personnel in proper use, operation, and daily maintenance of lifts. Review emergency provisions, including emergency access and procedures to be followed at time of operational failure and other building emergencies. Train the government's personnel in procedures to follow in identifying sources of operational failures or malfunctions. Confer with the government on requirements for a complete lift maintenance program.

B. Make a final check of each lift operation with the government's personnel present and before date of Substantial Completion. Determine that operation systems and devices are functioning properly.

END OF SECTION 14430

SECTION16050 - BASIC ELECTRICAL MATERIALS AND METHODS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following:
   1. Electrical equipment coordination and installation.
   2. Sleeves for raceways and cables.
   3. Sleeve seals.
   4. Common electrical installation requirements.

1.3 DEFINITIONS

A. ATS: Acceptance Testing Specifications.

B. EPDM: Ethylene-propylene-diene terpolymer rubber.

C. NBR: Acrylonitrile-butadiene rubber.

1.4 SUBMITTALS

A. Product Data: For each type of product indicated.

1.5 QUALITY ASSURANCE

A. Test Equipment Suitability and Calibration: Comply with NETA ATS, "Suitability of Test Equipment" and "Test Instrument Calibration."

1.6 COORDINATION

A. Coordinate arrangement, mounting, and support of electrical equipment:
   1. To allow maximum possible headroom unless specific mounting heights that reduce headroom are indicated.
   2. To provide for ease of disconnecting the equipment with minimum interference to other installations.
   3. To allow right of way for piping and conduit installed at required slope.
   4. So connecting raceways will be clear of obstructions and of the working and access space of other equipment.

B. Coordinate installation of required supporting devices.

C. Coordinate electrical testing of electrical, mechanical, and architectural items, so equipment and systems that are functionally interdependent are tested to demonstrate successful interoperability.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:
   1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, manufacturers specified.
   2. Manufacturers: Subject to compliance with requirements, provide products by one of the manufacturers specified.

2.2 SLEEVES FOR RACEWAYS AND CABLES

A. Steel Pipe Sleeves: ASTM A 53/A 53M, Type E, Grade B, Schedule 40, galvanized steel, plain ends.

B. Sleeves for Rectangular Openings: Galvanized sheet steel with minimum 0.052- or 0.138-inch thickness as indicated and of length to suit application.

C. Coordinate sleeve selection and application with selection and application of firestopping specified in Underwriters' Laboratories "Fire Resistance Directory."

2.3 SLEEVE SEALS

A. Description: Modular sealing device, designed for field assembly, to fill annular space between sleeve and raceway or cable.
   1. Available Manufacturers:
      a. Advance Products & Systems, Inc.
      b. Calpico, Inc.
      c. Metraflex Co.
      d. Pipeline Seal and Insulator, Inc.
   2. Sealing Elements: EPDM or NBR interlocking links shaped to fit surface of cable or conduit. Include type and number required for material and size of raceway or cable.
   3. Pressure Plates: Carbon steel. Include two for each sealing element.
   4. Connecting Bolts and Nuts: Carbon steel with corrosion-resistant coating of length required to secure pressure plates to sealing elements. Include one for each sealing element.

PART 3 - EXECUTION

3.1 COMMON REQUIREMENTS FOR ELECTRICAL INSTALLATION

A. Comply with NECA 1.

B. Measure indicated mounting heights to bottom of unit for suspended items and to center of unit for wall-mounting items.

C. Headroom Maintenance: If mounting heights or other location criteria are not indicated, arrange and install components and equipment to provide maximum possible headroom consistent with these requirements.

D. Equipment: Install to facilitate service, maintenance, and repair or replacement of components of both electrical equipment and other nearby installations. Connect in such a way as to facilitate future disconnecting with minimum interference with other items in the vicinity.

E. Right of Way: Give to raceways and piping systems installed at a required slope.

3.2 SLEEVE INSTALLATION FOR ELECTRICAL PENETRATIONS

A. Electrical penetrations occur when raceways, cables, wireways, cable trays, or busways penetrate concrete slabs, concrete or masonry walls, or fire-rated floor and wall assemblies.

B. Coordinate sleeve selection and application with selection and application of firestopping specified in Underwriters' Laboratories "Fire Resistance Directory."

C. Concrete Slabs and Walls: Install sleeves for penetrations unless core-drilled holes are used.

D. Use pipe sleeves unless penetration arrangement requires rectangular sleeved opening.

E. Rectangular Sleeve Minimum Metal Thickness:
1. For sleeve cross-section rectangle perimeter less than 50 inches and no side greater than 16 inches, thickness shall be 0.052 inch.
2. For sleeve cross-section rectangle perimeter equal to, or greater than, 50 inches and 1 or more sides equal to, or greater than, 16 inches, thickness shall be 0.138 inch.

F. Fire-Rated Assemblies: Install sleeves for penetrations of fire-rated floor and wall assemblies unless openings compatible with firestop system used are fabricated during construction of floor or wall.

G. Cut sleeves to length for mounting flush with both surfaces of walls.

H. Extend sleeves installed in floors 2 inches above finished floor level.

I. Size pipe sleeves to provide 1/4-inch annular clear space between sleeve and raceway or cable unless sleeve seal is to be installed.

J. Seal space outside of sleeves with grout for penetrations of concrete and masonry.

K. Interior Penetrations of Non-Fire-Rated Walls and Floors: Seal annular space between sleeve and raceway or cable, using joint sealant appropriate for size, depth, and location of joint.

L. Fire-Rated-Assembly Penetrations: Maintain indicated fire rating of walls, partitions, ceilings, and floors at raceway and cable penetrations. Install sleeves and seal raceway and cable penetration sleeves with firestop materials. Comply with Underwriters' Laboratories "Fire Resistance Directory."

M. Roof-Penetration Sleeves: Seal penetration of individual raceways and cables with flexible boot-type flashing units applied in coordination with roofing work.

N. Aboveground, Exterior-Wall Penetrations: Seal penetrations using sleeves and mechanical sleeve seals. Select sleeve size to allow for 1-inch annular clear space between pipe and sleeve for installing mechanical sleeve seals.

3.3 SLEEVE-SEAL INSTALLATION

A. Install to seal exterior wall penetrations.

B. Use type and number of sealing elements recommended by manufacturer for raceway or cable material and size. Position raceway or cable in center of sleeve. Assemble mechanical sleeve seals and install in annular space between raceway or cable and sleeve. Tighten bolts against pressure plates that cause sealing elements to expand and make watertight seal.

3.4 FIRESTOPPING

A. Apply firestopping to electrical penetrations of fire-rated floor and wall assemblies to restore original fire-resistance rating of assembly. Firestopping materials and installation requirements are specified in Underwriters' Laboratories "Fire Resistance Directory."

3.5 FIELD QUALITY CONTROL

A. Inspect installed sleeve and sleeve-seal installations and associated firestopping for damage and faulty work.

END OF SECTION 16050

SECTION 16073 - HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following:
   1. Hangers and supports for electrical equipment and systems.

1.3 DEFINITIONS

A. EMT: Electrical metallic tubing.

B. IMC: Intermediate metal conduit.

C. RMC: Rigid metal conduit.

1.4 PERFORMANCE REQUIREMENTS

A. Delegated Design: Design supports for multiple raceways, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.

B. Design supports for multiple raceways capable of supporting combined weight of supported systems and its contents.

C. Design equipment supports capable of supporting combined operating weight of supported equipment and connected systems and components.

D. Rated Strength: Adequate in tension, shear, and pullout force to resist maximum loads calculated or imposed for this Project.

1.5 SUBMITTALS

A. Product Data: For the following:
   1. Steel slotted support systems.

B. Shop Drawings: Signed and sealed by a qualified professional engineer. Show fabrication and installation details and include calculations for the following:
   1. Trapeze hangers. Include Product Data for components.
   2. Steel slotted channel systems. Include Product Data for components.
   3. Equipment supports.

C. Welding certificates.

1.6 QUALITY ASSURANCE

A. Welding: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."

B. Comply with NFPA 70.

1.7 COORDINATION

A. Coordinate installation of roof curbs, equipment supports, and roof penetrations. These items are specified in Division 7 Section "Roof Accessories."

PART 2 - PRODUCTS

2.1 SUPPORT, ANCHORAGE, AND ATTACHMENT COMPONENTS

A. Steel Slotted Support Systems: Comply with MFMA-4, factory-fabricated components for field assembly.
   1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
      a. Cooper B-Line, Inc.; a division of Cooper Industries.
      b. ERICO International Corporation.
      c. Thomas & Betts Corporation.
      d. Unistrut; Tyco International, Ltd.
   2. Metallic Coatings: Hot-dip galvanized after fabrication and applied according to MFMA-4.
   3. Nonmetallic Coatings: Manufacturer's standard PVC, polyurethane, or polyester coating applied according to MFMA-4.
   4. Channel Dimensions: Selected for applicable load criteria.

B. Raceway and Cable Supports: As described in NECA 1 and NECA 101.

C. Conduit and Cable Support Devices: Steel and malleable-iron hangers, clamps, and associated fittings, designed for types and sizes of raceway or cable to be supported.

D. Support for Conductors in Vertical Conduit: Factory-fabricated assembly consisting of threaded body and insulating wedging plug or plugs for non-armored electrical conductors or cables in riser conduits. Plugs shall have number, size, and shape of conductor gripping pieces as required to suit individual conductors or cables supported. Body shall be malleable iron.

E. Structural Steel for Fabricated Supports and Restraints: ASTM A 36/A 36M, steel plates, shapes, and bars; black and galvanized.

F. Mounting, Anchoring, and Attachment Components: Items for fastening electrical items or their supports to building surfaces include the following:
   1. Powder-Actuated Fasteners: Threaded-steel stud, for use in hardened portland cement concrete, steel, or wood, with tension, shear, and pullout capacities appropriate for supported loads and building materials where used.

a. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   1) Hilti Inc.
   2) ITW Ramset/Red Head; a division of Illinois Tool Works, Inc.
   3) MKT Fastening, LLC.
   4) Simpson Strong-Tie Co., Inc.; Masterset Fastening Systems Unit.

2. Mechanical-Expansion Anchors: Insert-wedge-type, zinc-coated steel, for use in hardened portland cement concrete with tension, shear, and pullout capacities appropriate for supported loads and building materials in which used.
   a. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
      1) Cooper B-Line, Inc.; a division of Cooper Industries.
      2) Empire Tool and Manufacturing Co., Inc.
      3) Hilti Inc.
      4) ITW Ramset/Red Head; a division of Illinois Tool Works, Inc.
      5) MKT Fastening, LLC.
3. Concrete Inserts: Steel or malleable-iron, slotted support system units similar to MSS Type 18; complying with MFMA-4 or MSS SP-58.
4. Clamps for Attachment to Steel Structural Elements: MSS SP-58, type suitable for attached structural element.
5. Through Bolts: Structural type, hex head, and high strength. Comply with ASTM A 325.
6. Toggle Bolts: All-steel springhead type.
7. Hanger Rods: Threaded steel.

PART 3 - EXECUTION

3.1 APPLICATION

A. Comply with NECA 1 and NECA 101 for application of hangers and supports for electrical equipment and systems except if requirements in this Section are stricter.

B. Maximum Support Spacing and Minimum Hanger Rod Size for Raceway: Space supports for EMT, IMC, and RMC as scheduled in NECA 1, where its Table 1 lists maximum spacings less than stated in NFPA 70. Minimum rod size shall be 1/4 inch in diameter.

C. Multiple Raceways or Cables: Install trapeze-type supports fabricated with steel slotted support system, sized so capacity can be increased by at least 25 percent in future without exceeding specified design load limits.
   1. Secure raceways and cables to these supports with two-bolt conduit clamps.

3.2 SUPPORT INSTALLATION

A. Comply with NECA 1 and NECA 101 for installation requirements except as specified in this Article.

B. Raceway Support Methods: In addition to methods described in NECA 1, EMT, IMC, and RMC may be supported by openings through structure members, as permitted in NFPA 70.

C. Strength of Support Assemblies: Where not indicated, select sizes of components so strength will be adequate to carry present and future static loads within specified loading limits. Minimum static design load used for strength determination shall be weight of supported components plus 200 lb.

D. Mounting and Anchorage of Surface-Mounted Equipment and Components: Anchor and fasten electrical items and their supports to building structural elements by the following methods unless otherwise indicated by code:
   1. To Wood: Fasten with lag screws or through bolts.
   2. To New Concrete: Bolt to concrete inserts.
   3. To Masonry: Approved toggle-type bolts on hollow masonry units and expansion anchor fasteners on solid masonry units.
   4. To Existing Concrete: Expansion anchor fasteners.
   5. Instead of expansion anchors, powder-actuated driven threaded studs provided with lock washers and nuts may be used in existing standard-weight concrete 4 inches thick or greater. Do not use for anchorage to lightweight-aggregate concrete or for slabs less than 4 inches thick.
   6. To Steel: Welded threaded studs complying with AWS D1.1/D1.1M, with lock washers and nuts.
   7. To Light Steel: Sheet metal screws.
   8. Items Mounted on Hollow Walls and Nonstructural Building Surfaces: Mount cabinets, panelboards, disconnect switches, control enclosures, pull and junction boxes, transformers, and other devices on slotted-channel racks attached to substrate.

E. Drill holes for expansion anchors in concrete at locations and to depths that avoid reinforcing bars.

3.3 PAINTING

A. Touchup: Clean field welds and abraded areas of shop paint. Paint exposed areas immediately after erecting hangers and supports. Use same materials as used for shop painting. Comply with SSPC-PA 1 requirements for touching up field-painted surfaces.
   1. Apply paint by brush or spray to provide minimum dry film thickness of 2.0 mils (0.05 mm).

B. Galvanized Surfaces: Clean welds, bolted connections, and abraded areas and apply galvanizing-repair paint to comply with ASTM A 780.

END OF SECTION 16073

SECTION 16075 - ELECTRICAL IDENTIFICATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following:
   1. Identification for raceway and metal-clad cable.
   2. Identification for conductors and communication and control cable.
   3. Equipment identification labels.
   4. Miscellaneous identification products.

1.3 SUBMITTALS

A. Product Data: For each electrical identification product indicated.

1.4 QUALITY ASSURANCE

A. Comply with NFPA 70.

B. Comply with 29 CFR 1910.145.

1.5 COORDINATION

A. Coordinate identification names, abbreviations, colors, and other features with requirements in the Contract Documents, Shop Drawings, manufacturer's wiring diagrams, and the Operation and Maintenance Manual, and with those required by codes, standards, and 29 CFR 1910.145. Use consistent designations throughout Project.

B. Coordinate installation of identifying devices with completion of covering and painting of surfaces where devices are to be applied.

C. Coordinate installation of identifying devices with location of access panels and doors.

D. Install identifying devices before installing acoustical ceilings and similar concealment.

PART 2 - PRODUCTS

2.1 RACEWAY AND METAL-CLAD CABLE IDENTIFICATION MATERIALS

A. Comply with ANSI A13.1 for minimum size of letters for legend and for minimum length of color field for each raceway and cable size.

B. Color for Printed Legend:
   1. Power Circuits: Black letters on an orange field.
   2. Legend: Indicate system or service and voltage, if applicable.

C. Self-Adhesive Vinyl Labels: Preprinted, flexible label laminated with a clear, weather- and chemical-resistant coating and matching wraparound adhesive tape for securing ends of legend label.

D. Self-Adhesive Vinyl Tape: Colored, heavy duty, waterproof, fade resistant; 2 inches wide; compounded for outdoor use.

2.2 CONDUCTOR AND COMMUNICATION- AND CONTROL-CABLE IDENTIFICATION MATERIALS

A. Color-Coding Conductor Tape: Colored, self-adhesive vinyl tape not less than 3 mils thick by 1 to 2 inches wide.

2.3 EQUIPMENT IDENTIFICATION LABELS

A. Engraved, Laminated Acrylic or Melamine Label: Punched or drilled for screw mounting. White letters on a dark-gray background. Minimum letter height shall be 3/8 inch.

2.4 MISCELLANEOUS IDENTIFICATION PRODUCTS

A. Cable Ties: Fungus-inert, self-extinguishing, 1-piece, self-locking, Type 6/6 nylon cable ties.
   1. Minimum Width: 3/16 inch (5 mm).
   2. Tensile Strength: 50 lb, minimum.
   3. Temperature Range: Minus 40 to plus 185 deg F.
   4. Color: Black, except where used for color-coding.

B. Fasteners for Labels and Signs: Self-tapping, stainless-steel screws or stainless-steel machine screws with nuts and flat and lock washers.

PART 3 - EXECUTION

3.1 APPLICATION

A. Accessible Raceways and Metal-Clad Cables, 600 V or Less, for Feeder, and Branch Circuits More Than 30 A: Identify with orange self-adhesive vinyl tape applied in bands.

B. Power-Circuit Conductor Identification: For secondary conductors No. 1/0 AWG and larger in pull and junction boxes use color-coding conductor tape. Identify phase.

C. Branch-Circuit Conductor Identification: Where there are conductors for more than three branch circuits in same junction or pull box, use color-coding conductor tape. Identify each ungrounded conductor according to phase.

D. Equipment Identification Labels: On each unit of equipment, install unique designation label that is consistent with wiring diagrams, schedules, and Operation and Maintenance Manual. Apply labels to disconnect switches and protection equipment, central or master units, control

panels, control stations, terminal cabinets, and racks of each system. Systems include power, lighting, control, communication, signal, monitoring, and alarm systems unless equipment is provided with its own identification.

1. Labeling Instructions:
   a. Indoor Equipment: Engraved, laminated acrylic or melamine label. Unless otherwise indicated, provide a single line of text with 1/2-inch- (13-mm-) high letters on 1-1/2-inch- (38-mm-) high label; where 2 lines of text are required, use labels 2 inches (50 mm) high.
   b. Outdoor Equipment: Engraved, laminated acrylic or melamine label.
   c. Elevated Components: Increase sizes of labels and letters to those appropriate for viewing from the floor.
2. Equipment to Be Labeled:
   a. Access doors and panels for concealed electrical items.
   b. Disconnect switches.

3.2 INSTALLATION

A. Verify identity of each item before installing identification products.

B. Location: Install identification materials and devices at locations for most convenient viewing without interference with operation and maintenance of equipment.

C. Apply identification devices to surfaces that require finish after completing finish work.

D. Self-Adhesive Identification Products: Clean surfaces before application, using materials and methods recommended by manufacturer of identification device.

E. Attach nonadhesive signs and plastic labels with screws and auxiliary hardware appropriate to the location and substrate.

F. Color-Coding for Phase and Voltage Level Identification, 600 V and Less: Use the colors listed below for ungrounded feeder, and branch-circuit conductors.
   1. Color shall be factory applied or, for sizes larger than No. 10 AWG if authorities having jurisdiction permit, field applied.
   2. Colors for 208/120-V Circuits:
      a. Phase A: Black.
      b. Phase B: Red.
      c. Phase C: Blue.
   3. Colors for 480/277-V Circuits:
      a. Phase A: Brown.
      b. Phase B: Orange.
      c. Phase C: Yellow.
   4. Field-Applied, Color-Coding Conductor Tape: Apply in half-lapped turns for a minimum distance of 6 inches (150 mm) from terminal points and in boxes where splices or taps are made. Apply last two turns of tape with no tension to prevent possible unwinding. Locate bands to avoid obscuring factory cable markings.

END OF SECTION 16075

SECTION 16120 - CONDUCTORS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following:
   1. Building wires rated 600 V and less.
   2. Connectors, splices, and terminations rated 600 V and less.

1.3 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Field quality-control test reports.

1.4 QUALITY ASSURANCE

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

B. Comply with NFPA 70.

PART 2 - PRODUCTS

2.1 CONDUCTORS AND CABLES

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   1. American Insulated Wire Corp.; a Leviton Company.
   2. General Cable Corporation.
   3. Senator Wire & Cable Company.
   4. Southwire Company.

B. Copper Conductors: Comply with NEMA WC 70.

C. Conductor Insulation: Comply with NEMA WC 70 for Types THHN-THWN.

2.2 CONNECTORS AND SPLICES

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   1. AFC Cable Systems, Inc.
   2. Hubbell Power Systems, Inc.

3. O-Z/Gedney; EGS Electrical Group LLC.
4. 3M; Electrical Products Division.
5. Tyco Electronics Corp.

B. Description: Factory-fabricated connectors and splices of size, ampacity rating, material, type, and class for application and service indicated.

PART 3 - EXECUTION

3.1 CONDUCTOR MATERIAL APPLICATIONS

A. Feeders: Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.

B. Branch Circuits: Copper. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.

3.2 CONDUCTOR INSULATION APPLICATIONS AND WIRING METHODS

A. Exposed Feeders: Type THHN-THWN, single conductors in raceway.

B. Feeders Concealed in Ceilings, Walls, Partitions, and Crawlspaces: Type THHN-THWN, single conductors in raceway.

C. Exposed Branch Circuits, Including in Crawlspaces: Type THHN-THWN, single conductors in raceway.

D. Branch Circuits Concealed in Ceilings, Walls, and Partitions: Type THHN-THWN, single conductors in raceway.

E. Class 1 Control Circuits: Type THHN-THWN, in raceway.

F. Class 2 Control Circuits: Type THHN-THWN, in raceway.

3.3 INSTALLATION OF CONDUCTORS

A. Conceal conductors in finished walls, ceilings, and floors, unless otherwise indicated.

B. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.

C. Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips that will not damage cables or raceway.

D. Install exposed conduits parallel and perpendicular to surfaces of exposed structural members, and follow surface contours where possible.

E. Support conduits according to Division 16 Section "Electrical Supports and Seismic Restraints."

F. Identify and color-code conductors according to Division 16 Section "Electrical Identification."

3.4 CONNECTIONS

A. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A.

B. Make splices and taps that are compatible with conductor material and that possess equivalent or better mechanical strength and insulation ratings than unspliced conductors.

C. Wiring at Outlets: Install conductor at each outlet, with at least 12 inches of slack.

3.5 FIELD QUALITY CONTROL

A. Perform tests and inspections and prepare test reports.

B. Tests and Inspections:
   1. After installing conductors and before electrical circuitry has been energized, test feeder conductors for compliance with requirements.
   2. Perform each visual and mechanical inspection and electrical test stated in NETA Acceptance Testing Specification. Certify compliance with test parameters.

C. Test Reports: Prepare a written report to record the following:
   1. Test procedures used.
   2. Test results that comply with requirements.
   3. Test results that do not comply with requirements and corrective action taken to achieve compliance with requirements.

D. Remove and replace malfunctioning units and retest as specified above.

END OF SECTION 16120

SECTION 16130 - RACEWAYS AND BOXES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes raceways, fittings, boxes, enclosures, and cabinets for electrical wiring.

1.3 DEFINITIONS

A. EMT: Electrical metallic tubing.

B. ENT: Electrical nonmetallic tubing.

C. FMC: Flexible metal conduit.

D. IMC: Intermediate metal conduit.

E. LFMC: Liquidtight flexible metal conduit.

F. LFNC: Liquidtight flexible nonmetallic conduit.

G. RNC: Rigid nonmetallic conduit.

1.4 QUALITY ASSURANCE

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

B. Comply with NFPA 70.

PART 2 - PRODUCTS

2.1 METAL CONDUIT AND TUBING

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   1. AFC Cable Systems, Inc.
   2. Alflex Inc.
   3. Allied Tube & Conduit; a Tyco International Ltd. Co.
   4. Anamet Electrical, Inc.; Anaconda Metal Hose.
   5. Electri-Flex Co.
   6. Manhattan/CDT/Cole-Flex.
   7. Maverick Tube Corporation.

8. O-Z Gedney; a unit of General Signal.
9. Wheatland Tube Company.

B. Rigid Steel Conduit: ANSI C80.1.

C. IMC: ANSI C80.6.

D. EMT: ANSI C80.3.

E. FMC: Zinc-coated steel.

F. LFMC: Flexible steel conduit with PVC jacket.

G. Fittings for Conduit (Including all Types and Flexible and Liquidtight), EMT, and Cable: NEMA FB 1; listed for type and size raceway with which used, and for application and environment in which installed.
1. Fittings for EMT: Steel or die-cast, compression type.

H. Joint Compound for Rigid Steel Conduit or IMC: Listed for use in cable connector assemblies, and compounded for use to lubricate and protect threaded raceway joints from corrosion and enhance their conductivity.

2.2 BOXES, ENCLOSURES, AND CABINETS

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
1. Cooper Crouse-Hinds; Div. of Cooper Industries, Inc.
2. EGS/Appleton Electric.
3. Erickson Electrical Equipment Company.
4. Hoffman.
5. Hubbell Incorporated; Killark Electric Manufacturing Co. Division.
6. O-Z/Gedney; a unit of General Signal.
7. RACO; a Hubbell Company.
8. Robroy Industries, Inc.; Enclosure Division.
9. Scott Fetzer Co.; Adalet Division.
10. Spring City Electrical Manufacturing Company.
11. Thomas & Betts Corporation.
12. Walker Systems, Inc.; Wiremold Company (The).
13. Woodhead, Daniel Company; Woodhead Industries, Inc. Subsidiary.

B. Sheet Metal Outlet and Device Boxes: NEMA OS 1.

C. Cast-Metal Outlet and Device Boxes: NEMA FB 1, ferrous alloy, Type FD, with gasketed cover.

D. Small Sheet Metal Pull and Junction Boxes: NEMA OS 1.

PART 3 - EXECUTION

3.1 RACEWAY APPLICATION

A. Outdoors: Apply raceway products as specified below, unless otherwise indicated:
   1. Exposed Conduit: Rigid steel conduit.
   2. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): LFMC.
   3. Boxes and Enclosures, Aboveground: NEMA 250, Type 3R.

B. Comply with the following indoor applications, unless otherwise indicated:
   1. Exposed, Not Subject to Physical Damage: EMT or RNC.
   2. Exposed, Not Subject to Severe Physical Damage: EMT.
   3. Exposed and Subject to Severe Physical Damage: Rigid steel conduit. Includes raceways in the following locations:
      a. Mechanical rooms.
   4. Concealed in Ceilings and Interior Walls and Partitions: EMT.
   5. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment): FMC, except use LFMC in damp or wet locations.
   6. Damp or Wet Locations: Rigid steel conduit.
   7. Boxes and Enclosures: NEMA 250, Type 1, except use NEMA 250, Type 4, stainless steel in damp or wet locations.

C. Minimum Raceway Size: 3/4-inch trade size.

D. Raceway Fittings: Compatible with raceways and suitable for use and location.
   1. Rigid Conduit: Use threaded rigid steel conduit fittings, unless otherwise indicated.

3.2 INSTALLATION

A. Comply with NECA 1 for installation requirements applicable to products specified in Part 2 except where requirements on Drawings or in this Article are stricter.

B. Keep raceways at least 6 inches away from parallel runs of flues and steam or hot-water pipes. Install horizontal raceway runs above water and steam piping.

C. Complete raceway installation before starting conductor installation.

D. Support raceways as specified in Division 16 Section "Hangers And Supports For Electrical Systems."

E. Install no more than the equivalent of three 90-degree bends in any conduit run except for communications conduits, for which fewer bends are allowed.

F. Conceal conduit and EMT within finished walls, ceilings, and floors, unless otherwise indicated.

G. Threaded Conduit Joints, Exposed to Wet, Damp, Corrosive, or Outdoor Conditions: Apply listed compound to threads of raceway and fittings before making up joints. Follow compound manufacturer's written instructions.

H. Raceway Terminations at Locations Subject to Moisture or Vibration: Use insulating bushings to protect conductors, including conductors smaller than No. 4 AWG.

I. Install pull wires in empty raceways. Use polypropylene or monofilament plastic line with not less than 200-lb tensile strength. Leave at least 12 inches of slack at each end of pull wire.

J. Install raceway sealing fittings at suitable, approved, and accessible locations and fill them with listed sealing compound. For concealed raceways, install each fitting in a flush steel box with a blank cover plate having a finish similar to that of adjacent plates or surfaces. Install raceway sealing fittings at the following points:
   1. Where conduits pass from warm to cold locations, such as boundaries of refrigerated spaces.
   2. Where otherwise required by NFPA 70.

K. Flexible Conduit Connections: Use maximum of 72 inches of flexible conduit for equipment subject to vibration, noise transmission, or movement; and for transformers and motors.
   1. Use LFMC in damp or wet locations.

L. Recessed Boxes in Masonry Walls: Saw-cut opening for box in center of cell of masonry block, and install box flush with surface of wall.

3.3 FIRESTOPPING

A. Apply firestopping to electrical penetrations of fire-rated floor and wall assemblies to restore original fire-resistance rating of assembly. Firestopping materials and installation requirements are specified in Underwriters' Laboratories "Fire Resistance Directory."

3.4 PROTECTION

A. Provide final protection and maintain conditions that ensure coatings, finishes, and cabinets are without damage or deterioration at time of Substantial Completion.
   1. Repair damage to galvanized finishes with zinc-rich paint recommended by manufacturer.

END OF SECTION 16130

SECTION 16410 - ENCLOSED SWITCHES AND CIRCUIT BREAKERS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following individually mounted, enclosed switches and circuit breakers:
   1. Fusible switches.
   2. Nonfusible switches.
   3. Molded-case circuit breakers.
   4. Molded-case switches.
   5. Enclosures.

1.3 DEFINITIONS

A. HD: Heavy duty.

B. RMS: Root mean square.

1.4 SUBMITTALS

A. Product Data: For each type of enclosed switch, circuit breaker, accessory, and component indicated. Include dimensioned elevations, sections, weights, and manufacturers' technical data on features, performance, electrical characteristics, ratings, and finishes.
   1. Enclosure types and details for types other than NEMA 250, Type 1.
   2. Current and voltage ratings.
   3. Short-circuit current rating.
   4. Features, characteristics, ratings, and factory settings of individual overcurrent protective devices and auxiliary components.

B. Shop Drawings: Diagram power, signal, and control wiring.

C. Field quality-control test reports including the following:
   1. Test procedures used.
   2. Test results that comply with requirements.
   3. Results of failed tests and corrective action taken to achieve test results that comply with requirements.

D. Manufacturer's field service report.

E. Operation and Maintenance Data: For enclosed switches and circuit breakers to include in emergency, operation, and maintenance manuals. In addition to items specified in Division 1, include the following:
   1. Manufacturer's written instructions for testing and adjusting enclosed switches and circuit breakers.
   2. Time-current curves, including selectable ranges for each type of circuit breaker.

1.5 QUALITY ASSURANCE

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

B. Comply with NFPA 70.

1.6 PROJECT CONDITIONS

A. Environmental Limitations: Rate equipment for continuous operation under the following conditions, unless otherwise indicated:
   1. Ambient Temperature: Not less than minus 22 deg F (minus 30 deg C) and not exceeding 104 deg F (40 deg C).
   2. Altitude: Not exceeding 6600 feet (2010 m).

1.7 COORDINATION

A. Coordinate layout and installation of switches, circuit breakers, and components with other construction, including conduit, piping, equipment, and adjacent surfaces. Maintain required workspace clearances and required clearances for equipment access doors and panels.

1.8 EXTRA MATERIALS

A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
   1. Spares: For the following:
      a. Fuses for Fusible Switches: Three of each rating installed

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:
   1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, manufacturers specified.
   2. Manufacturers: Subject to compliance with requirements, provide products by one of the manufacturers specified.

2.2 FUSIBLE AND NONFUSIBLE SWITCHES

A. Available Manufacturers:
1. Eaton Corporation; Cutler-Hammer Products.
2. General Electric Co.; Electrical Distribution & Control Division.
3. Siemens Energy & Automation, Inc.
4. Square D/Group Schneider.

B. Fusible Switch, 600 A and Smaller: NEMA KS 1, Type HD, with clips or bolt pads to accommodate specified fuses, lockable handle with capability to accept two padlocks, and interlocked with cover in closed position.

C. Nonfusible Switch, 600 A and Smaller: NEMA KS 1, Type HD, lockable handle with capability to accept two padlocks, and interlocked with cover in closed position.

D. Accessories:
1. Equipment Ground Kit: Internally mounted and labeled for copper and aluminum ground conductors.
2. Neutral Kit: Internally mounted; insulated, capable of being grounded, and bonded; and labeled for copper and aluminum neutral conductors.
3. Auxiliary Contact Kit: Auxiliary set of contacts arranged to open before switch blades open.

2.3 ENCLOSURES

A. NEMA AB 1 and NEMA KS 1 to meet environmental conditions of installed location.
1. Outdoor Locations: NEMA 250, Type 3R.
2. Other Wet or Damp Indoor Locations: NEMA 250, Type 4.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine elements and surfaces to receive enclosed switches and circuit breakers for compliance with installation tolerances and other conditions affecting performance.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 IDENTIFICATION

A. Identify field-installed conductors, interconnecting wiring, and components; provide warning signs as specified in Division 16 Section "Electrical Identification."

B. Enclosure Nameplates: Label each enclosure with engraved metal or laminated-plastic nameplate as specified in Division 16 Section "Electrical Identification."

3.3 FIELD QUALITY CONTROL

A. Prepare for acceptance testing as follows:
1. Inspect mechanical and electrical connections.

2. Verify switch and relay type and labeling verification.
3. Verify rating of installed fuses.

B. Testing Agency: Owner will engage a qualified testing and inspecting agency to perform field tests and inspections and prepare test reports.
1. Perform each electrical test and visual and mechanical inspection stated in NETA ATS, Section 7.5 for switches and Section 7.6 for molded-case circuit breakers. Certify compliance with test parameters.
2. Correct malfunctioning units on-site, where possible, and retest to demonstrate compliance; otherwise, replace with new units and retest.

3.4 CLEANING

A. On completion of installation, vacuum dirt and debris from interiors; do not use compressed air to assist in cleaning.

B. Inspect exposed surfaces and repair damaged finishes.

END OF SECTION 16410

ATTACHMENTS

GENERAL DECISION: **DC20030003** 03/10/2006 DC3

Date: March 10, 2006
General Decision Number: **DC20030003** 03/10/2006

Superseded General Decision Number: DC020003

State: District of Columbia

Construction Type: Building

County: District of Columbia Statewide.

BUILDING CONSTRUCTION PROJECTS (Does not include single family homes and apartments up to and including 4 stories)

Modification Number	Publication Date
0	06/13/2003
1	10/03/2003
2	10/31/2003
3	01/09/2004
4	03/19/2004
5	04/02/2004
6	05/14/2004
7	06/11/2004
8	06/18/2004
9	06/25/2004
10	07/02/2004
11	07/09/2004
12	07/16/2004
13	08/13/2004
14	08/20/2004
15	09/17/2004
16	09/24/2004
17	10/29/2004
18	11/12/2004
19	01/21/2005
20	04/01/2005
21	05/06/2005
22	06/03/2005
23	06/10/2005
24	06/24/2005
25	07/01/2005
26	07/08/2005
27	07/22/2005
28	08/19/2005
29	08/26/2005
30	09/16/2005
31	10/28/2005
32	11/04/2005
33	11/11/2005
34	11/25/2005
35	02/03/2006
36	03/10/2006

* ASBE0024-001 03/01/2006

	Rates	Fringes

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  Asbestos Worker/Heat and
  Frost Insulator
     Includes the application
     of all insulating
     materials, protective
     coverings, coatings and
     finishes to all types of
     mechanical systems.....$ 25.88            12.88
----------------------------------------------------------------
* ASBE0024-002 03/01/2006

                                  Rates          Fringes

  Hazardous Material Handler
     Includes preparation,
     wetting, stripping,
     removal, scrapping,
     vacuuming, bagging and
     disposing of all
     insulation materials,
     whether they contain
     asbestos or not, from
     mechanical systems.....$ 14.22             6.35
----------------------------------------------------------------
* ASBE0024-005 03/01/2006

                                  Rates          Fringes

  Fire Stop Technician
     Includes the application
     of materials or devices
     within or around
     penetrations and openings
     in all rated wall or floor
     assemblies, in order to
     prevent the passage of
     fire, smoke or other
     gases. The application
     includes all components
     involved in creating the
     rated barrier at perimeter
     slab edges and exterior
     cavities, the head of
     gypsum board or concrete
     walls, joints between
     rated wall or floor
     components, sealing of
     penetrating items and
     blank openings.....$ 20.94             6.09
----------------------------------------------------------------
BRDC0001-001 11/06/2005

                                  Rates          Fringes

  Bricklayer.....$ 25.25             6.09
----------------------------------------------------------------
CARP0132-006 05/01/2005

                                  Rates          Fringes
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  Carpenter (Including Drywall
  Hanging).....................$ 22.89             5.39
  Piledriver...................$ 21.47             5.81
----------------------------------------------------------------
ELEC0026-003 09/02/2002

                                    Rates          Fringes

  Communication Technician.......$ 20.60             5.09

  SCOPE OF WORK: Includes low voltage construction,
  installation, maintenance and removal of teledata
  facilities (voice, data and video) including outside plant,
  telephone and data inside wire, interconnect, terminal
  equipment, central offices, PABX, fiber optic cable and
  equipment, railroad communications, micro waves, VSAT,
  bypass, CATV, WAN (Wide area networks), LAN (Local area
  networks) and ISDN (Integrated systems digital network).

  WORK EXCLUDED: The installation of computer systems in
  industrial applications such as assembly lines, robotics
  and computer controller manufacturing systems.  The
  installation of conduit and/or raceways shall be installed
  by Inside Wiremen. On sites where there is no Inside
  Wireman employed, the Teledata Technician may install
  raceway or conduit not greater than 10 feet. Fire alarm
  work is excluded on all new construction sites or wherever
  the fire alarm system is installed in conduit.  All HVAC
  control work.
----------------------------------------------------------------
ELEC0026-016 11/07/2005

                                    Rates          Fringes

  Electrician (Excluding
  Communication-Low Voltage
  Wiring).....................$ 30.45       10.35+3%+a

  a. PAID HOLIDAYS: New Year's Day, Martin Luther King Jr.'s
  Birthday, Inauguration Day, Memorial Day, Fourth of July,
  Labor Day, Veterans Day, Thanksgiving Day, the day after
  Thanksgiving and Christmas Day or days designated as legal
  holidays by the Federal Government.
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ENGI0077-009 05/01/2005

                                    Rates          Fringes

  Power equipment operators:
     Boom Trucks..............$ 24.87              6.02+a
     Cranes (35 tons and above)..$ 25.74         6.02+a+b
     Cranes (under 35 tons)......$ 25.28         6.02+a+b
     Forklifts................$ 17.50              6.02+a
     Piledrivers..............$ 25.28              6.02+a

a. PAID HOLIDAYS:
  New Years Day, Inaugural Day, Decoration Day, Independence
  Day, Labor Day, Martin Luther King's Birthday, Veterans
  Day, Thanksgiving Day, Friday after Thanksgiving and
  Christmas Day.
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b. PREMIUM PAY:
Tower cranes and cranes 100-ton and over to receive $1.00 per hour premium over Group One.

IRON0005-001 06/01/2005

	Rates	Fringes
Ironworkers:		
Structural, Ornamental and Chain Link Fence	$ 24.53	10.795

IRON0201-003 05/01/2005

	Rates	Fringes
Ironworker, Reinforcing	$ 24.45	9.73

LABO0074-001 06/01/2005

	Rates	Fringes
Laborer: Skilled	$ 18.03	3.12

FOOTNOTE: Potmen, power tool operator, small machine operator, concrete labor including concrete preparation, signalmen, laser beam operator, waterproofer, open caisson, test pit, underpinning, pier hole and ditches, laggers and all work associated with lagging that is not expressly stated, strippers, operator of hand derricks, vibrator operators, pipelayers, or tile layers, operators of jackhammers, paving breakers, spaders or any machine that does the same general type of work, scaffold builders, operators of towmasters, scootcretes, buggymobiles and other machines of similar character, operators of tampers and rammers, and other machines that do the same general type of work, whether powered by air, electric or gasoline builders of trestle scaffolds over one tier high and sand blasters, power and chain saw operators used in clearing, installers of well points, wagon drill operators, acetylene burners and licensed powdermen.

LABO0456-012 06/01/2005

	Rates	Fringes
Laborers:		
Mason Tenders (Brick)	$ 13.75	3.12
Mortarmen, Scaffold Builders	$ 14.45	3.12

MARB0002-002 05/01/2005

	Rates	Fringes
Marble & Stone Mason	$ 28.72	10.55

INCLUDES pointing, caulking and cleaning of All types of masonry, brick, stone and cement structures; EXCEPT pointing, caulking and cleaning of exisiting masonry,

brick, stone and cement (restoration work)

MARB0003-001 05/01/2005

	Rates	Fringes
Mosaic & Terrazzo Worker, Tile Layer	$ 23.17	8.53

MARB0003-004 05/01/2005

	Rates	Fringes
Marble, Tile & Terrazzo Finisher	$ 18.72	7.62

PAIN0051-004 06/01/2005

	Rates	Fringes
Glazier		
Contracts $2,000,000 and under	$ 21.87	7.21
Contracts over $2,000,000	$ 23.09	7.21

PAIN0051-010 06/01/2005

	Rates	Fringes
Painters:		
Brush, Roller, Spray and Drywall Finishers	$ 21.31	7.06

PLAS0891-003 05/01/2004

	Rates	Fringes
Cement Mason	$ 23.73	4.945

PLUM0005-007 08/01/2005

	Rates	Fringes
Plumber		
Apartment Buildings over 4 stories (except hotels)	$ 19.86	7.56+a
ALL Other Work	$ 31.05	11.26+a

a. PAID HOLIDAYS: Labor Day, Veterans' Day, Thanksgiving Day and the day after Thanksgiving, Christmas Day, New Year's Day, Martin Luther King's Birthday, Memorial Day and the Fourth of July.

PLUM0602-006 08/01/2005

	Rates	Fringes
Steamfitter, Refrigeration & Air Conditioning Mechanic (Including HVAC Pipe Work)	$ 30.27	12.02+a

a. PAID HOLIDAYS:
New Year's Day, Martin Luther King's Birthday, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day and the day after Thanksgiving Day and Christmas Day.

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* SFDC0669-001 01/01/2006

	Rates	Fringes
Sprinkler Fitter	$ 26.45	12.15

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* SHEE0100-002 07/01/2005

	Rates	Fringes
Sheet Metal Worker (Including HVAC Duct Work)	$ 29.18	10.51

SUDC2000-001 04/12/2000

	Rates	Fringes
Laborer, Unskilled	$ 11.83	2.23
Pointer, caulker and cleaner INCLUDES pointing, caulking and cleaning of existing masonry, brick, stone and cement structures (restoration work); EXCLUDES pointing, caulking and cleaning of new or replacement masonry, brick, stone and cement	$ 20.00	

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

**** NOTICE ****

TO: ALL VENDORS/CONTRACTORS/CONSULTANTS

FROM: THE OFFICE OF THE ARCHITECT OF THE CAPITOL

Due to requirements set forth in the DEBT COLLECTION IMPROVEMENT ACT OF 1996 (PUBLIC LAW 104-134), all payments made to vendors, contractors and consultants doing business with the Federal Government must be made by Electronic Funds Transfer (EFT) directly to your financial institution. If you are currently enrolled under EFT with the Architect of the Capitol, no further action is necessary other than to report changes.

EFT payments are cost effective, enabling prompt, convenient and reliable payments directly to a designated bank account.

The Architect of the Capitol, in making EFT payments, supplies the financial institution with identifying information (ie. invoice number), which accompanies each transaction. The financial institution in turn can supply this information to the account holder.

Therefore, to accomplish the mandate of P. L. 104-134, it is necessary that the attached sheet; PAYMENT INFORMATION FORM ACH VENDOR PAYMENT SYSTEM be completed and returned with your bid or offer as set forth in Section G of the solicitation.

PAYMENT INFORMATION FORM
ACH VENDOR PAYMENT SYSTEM

This form is used for ACH payments with an addendum record that carries payment-related information. Recipients of these payments should bring this information to the attention of their financial institution when presenting this form for completion. The information will be transmitted in the CCD+ format to the designated financial institution.

Debt Collection Improvement Act of 1996

PAPERWORK REDUCTION ACT STATEMENT

The information being collected on this form is pursuant to Public Law 104-134, which mandated Electronic Funds Transfer for recipients of all federal payments (excluding IRS tax refunds) beginning July 24, 1996. This information will be needed by the Treasury Department to transmit payments and related data.

COMPANY INFORMATION	
NAME:	
ADDRESS:	
CONTRACT NUMBER: **AOC-**_____	TAXPAYER IDENTIFICATION NUMBER (TIN):
CONTACT PERSON NAME:	TELEPHONE NUMBER: ( ) FAX NUMBER: ( )

AGENCY INFORMATION	
NAME: ARCHITECT OF THE CAPITOL - FORD HOUSE OFFICE BUILDING	
ADDRESS: ACCOUNTING DIVISION, ROOM H2-205	
WASHINGTON, D.C. 20024	FAX NUMBER: (202) 225-7321
CONTACT PERSON NAME: MR. JAMES JARBOE	TELEPHONE NUMBER: (202) 226-2552

FINANCIAL INSTITUTION INFORMATION	
BANK NAME:	
BRANCH LOCATION: (If applicable)	
CONTACT NAME:	TELEPHONE NUMBER: ( )
NINE DIGIT ROUTING TRANSIT NUMBER: ___ ___ ___ ___ ___ ___ ___ ___ ___	
DEPOSITOR ACCOUNT NUMBER:	
TYPE OF ACCOUNT: _____ CHECKING _____ SAVINGS _____LOCKBOX	
SIGNATURE AND TITLE OF REPRESENTATIVE:	TELEPHONE NUMBER:

BID BOND *(See instruction on reverse)*	DATE BOND EXECUTED *(Must not be later than bid opening date)*	OMB NO.:9000-0045

PRINCIPAL *(Legal name and business address)*	TYPE OF ORGANIZATION *("X" one)* ☐ INDIVIDUAL ☐ PARTNERSHIP ☐ JOINT VENTURE ☐ CORPORATION STATE OF INCORPORATION

SURETY(IES) *(Name and business address)*

PENAL SUM OF BOND					BID IDENTIFICATION	
PERCENT OF BID PRICE	AMOUNT NOT TO EXCEED				BID DATE	INVITATION NO.
	MILLION(S)	THOUSAND(S)	HUNDRED(S)	CENTS	FOR *(Construction, Supplies, or Services)*	

OBLIGATION:

We, the Principal and Surety(ies) are firmly bound to the United States of America (hereinafter called the Government) in the above penal sum. For payment of the penal sum, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally. However, where the Sureties are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or actions against any or all of us. For all other purposes, each Surety binds itself, jointly and severally with the Principal, for the payment of the sum shown opposite the name of the Surety. If no limit of liability is indicated, the limit of liability is the full amount of the penal sum.

CONDITIONS:

The Principal has submitted the bid identified above.

THEREFORE:

The above obligation is void if the Principal - (a) upon acceptance by the Government of the bid identified above, within the period specified therein for acceptance (sixty (60) days if no period is specified), executes the further contractual documents and gives the bond(s) required by the terms of the bid as accepted within the time specified (ten (10) days if no period is specified) after receipt of the forms by the principal; or (b) in the event of failure to execute such further contractual documents and give such bonds, pays the Government for any cost of procuring the work which exceeds the amount of the bid.

Each Surety executing this instrument agrees that its obligation is not impaired by any extension(s) of the time for acceptance of the bid that the Principal may grant to the Government. Notice to the surety(ies) of extension(s) are waived. However, waiver of the notice applies only to extensions aggregating not more than sixty (60) calendar days in addition to the period originally allowed for acceptance of the bid.

WITNESS:

The Principal and Surety(ies) executed this bid bond and affixed their seals on the above date.

PRINCIPAL

SIGNATURE(S)	1. *(Seal)*	2. *(Seal)*	3. *(Seal)*	*Corporate Seal*
NAME(S) & TITLE(S) *(Typed)*	1.	2.	3.	

INDIVIDUAL SURETY(IES)

SIGNATURE(S)	1. *(Seal)*	2. *(Seal)*
NAME(S) *(Typed)*	1.	2.

CORPORATE SURETY(IES)

SURETY A	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT ($)	
	SIGNATURE(S)	1.	2.		*Corporate Seal*
	NAME(S) & TITLE(S) *(Typed)*	1.	2.		

SURETY B	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT ($)	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) *(Typed)*	1.	2.		
SURETY C	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT ($)	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) *(Typed)*	1.	2.		
SURETY D	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT ($)	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) *(Typed)*	1.	2.		
SURETY E	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT ($)	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) *(Typed)*	1.	2.		
SURETY F	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT ($)	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) *(Typed)*	1.	2.		
SURETY G	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT ($)	Corporate Seal
	SIGNATURE(S)	1.	2.		
	NAME(S) & TITLE(S) *(Typed)*	1.	2.		

INSTRUCTIONS

1. This form is authorized for use when a bid guaranty is required. Any deviation from this form will require the written approval of the Administrator of General Services.

2. Insert the full legal name and business address of the Principal in the space designated "Principal" on the face of the form. An authorized person shall sign the bond. Any person signing in a representative capacity (e.g., an attorney-in-fact) must furnish evidence of authority if that representative is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved.

3. The bond may express penal sum as a percentage of the bid price. In these cases, the bond may state a maximum dollar limitation (e.g., 20% of the bid price but the amount not to exceed _____ dollars).

4. (a) Corporations executing the bond as sureties must appear on the Department of the Treasury's list of approved sureties and must act within the limitation listed therein. where more than one corporate surety is involved, their names and addresses shall appear in the spaces (Surety A, Surety B, etc.) headed "CORPORATE SURETY(IES)." In the space designed "SURETY(IES)" on the face of the form, insert only the letter identification of the sureties.

(b) Where individual sureties are involved, a completed Affidavit of Individual surety (Standard Form 28), for each individual surety, shall accompany the bond. The Government may require the surety to furnish additional substantiating information concerning its financial capability.

5. Corporations executing the bond shall affix their corporate seals. Individuals shall execute the bond opposite the word "Corporate Seal"; and shall affix an adhesive seal if executed in Maine, New Hampshire, or any other jurisdiction requiring adhesive seals.

6. Type the name and title of each person signing this bond in the space provided.

7. In its application to negotiated contracts, the terms "bid" and "bidder" shall include "proposal" and "offeror."

UNITED STATES CAPITOL POLICE
WASHINGTON, D.C. 20510-7218

CP-491
(4-04)

REQUEST FOR CHECK OF CRIMINAL HISTORY RECORDS

Please report with: (1) A valid form of photo identification, (2) and this form to the Fairchild Building located at 499 South Capitol Street SW Washington, D.C., Room 127 between the hours of 7am until 3pm Monday through Friday for processing.

1. *Name:* (Last, First, Middle)

Address:
Street & No. _____
City & State: _____
Zip: _____ Tele: _____

2. *Other Names Ever Used:* (e.g. maiden name, nickname, ect. *If you have never used another name write "None".)*

3. *Date of Birth:* (Month, Day, Year)

4. *Birthplace:* (City and State or Country)

5. *Social Security Number:*

6. *Gender:*
Male Female

7. *Race:*

8. *Height:*

9. *Weight:*

10. *Eye Color:*

11. *Hair Color:*

SIGNATURE AND RELEASE OF INFORMATION:

READ THE FOLLOWING CAREFULLY BEFORE YOU SIGN:

- I understand that the information provided above will be used to check the criminal history records of the Federal Bureau of Investigation (FBI).
- I consent to the use of the information provided in making a security determination concerning me.
- I certify that, to the best of my knowledge and belief, all of the information provided above is true, correct, and complete, made in good faith.

12. **Signature:** _____ 13. **Date:** _____